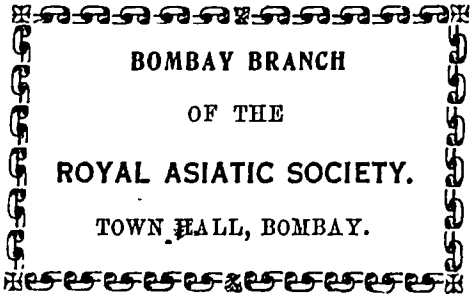
Forest Dept.

Madras Presy.

report

1923-24 & 1924-25

2 Vols (Each)



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ADMINISTRATION REPORT
OF THE
FOREST DEPARTMENT
OF THE
MADRAS PRESIDENCY

FOR THE YEAR ENDING 31st MARCH 1924

1923-1924

BISON IN THE JUNGLE

VOL. I

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Government of Madras

DEVELOPMENT DEPARTMENT

G.O. No. 243, 13th February 1925

Forests—Administration report—1923-24—Recorded.

Order—No. 243, Development, dated 13th February 1925.

Recorded.

2. The Chief Conservator's report, in addition to the usual account of the past year's working, gives a summary of the progress in Forest administration during the quinquennium ending with 31st March 1924.

3. In contrast to the quinquennium ending with June 1919, which synchronised roughly with the war period when progress was hampered for lack of funds and still more for lack of men, the quinquennium under review marked definitely a step forward towards the scientific exploitation of the undeveloped forest resources of the Presidency. With the constitution of a special branch of the service to deal with exploitation and engineering problems, a scheme was developed for the utilization of the Chenat Nair evergreen forests which included the erection of a saw-mill at Olavakode and investigation was begun into the possibilities of working the Papanasam forests of Tinnevelly and a large area of North Mangalore on new lines. Working-plans were completed and sanctioned for the Nilambur valley forests in Malabar and the valuable sal areas in Ganjam, the latter of which was an urgent necessity in view of the opening of the Russellkonda Saw-mill.

4. The area under control at the beginning and at the end of the quinquennium showed no marked variation but important changes were made in the administrative machinery by the development of the Forest Panchayat system. With the appointment of a special forest panchayat staff it was found possible to transfer an area of a thousand square miles of reserve forests to panchayat management. The Government consider that the new policy of enlisting the co-operation of the very class of person, which traditionally used to regard the Forest department as its enemy, in the management of the smaller reserves has already had a most beneficial effect not

only in reducing the possibilities of friction, but also in educating public opinion to appreciate the necessity of scientific protection. They trust that in the new quinquennium rapid strides will be made towards the evolution of a completed system under which the control of areas in which local interests predominate will be vested in the communities whose real interest it is to protect them while the officers of the department will be set free to concentrate their attention on the development of the valuable major forests of the Presidency, the full possibilities of which yet remain to be explored.

5. The quinquennium under review witnessed important changes in Sylviculture. Perhaps the most interesting experiment was the new system of fire-protection which at half the expense seems likely to double the effectiveness of the operations. The Government observe with satisfaction that the area of forests open to grazing had increased to four-fifths of the total area by the end of the quinquennium and that the number of animals allowed free grazing was trebled.

6. The figures of forest offences show no important variation. The outbreak of organized lawlessness during the non-co-operation campaign, which was specially virulent in Guntūr district resulted in the murder of several forest subordinates. The Mappilla rebellion completely dislocated work in Malabar for a time; but both these events were transient features which are not likely to recur.

7. The financial results of the quinquennium were at first sight disappointing. The handsome surplus of 1919–20 was during 1921–22 converted into a deficit by a sharp drop in revenue and an equally rapid rise of expenditure. The last two years, however, made a better showing: an upward tendency in receipts and a small but steady reduction of expenditure produced results which, if not comparable with the abnormal figures of the war boom period, can at least be considered promising. The Government trust that a more scientific and economic system of exploitation coupled with improved methods of marketing forest produce will, given normal trade conditions, enable the department to make a progressively increasing contribution to revenue in the new quinquennium.

8. Apart from the observations already made the work of the year under review calls for little comment. The Government note with satisfaction that the new system of fire-protection which was in operation on a largely extended area appears to have been accepted with equanimity by the local population and to have caused no trouble. The results obtained at a considerably reduced cost were creditable.

9. The Government attach much importance to the development of new markets for Madras timber both in India and abroad. Since the close of the year arrangements have been made for the opening of a small saw-mill plant at Beypore with a view to the supply of sleepers direct to Indian Railways. The Government see no reason why West Coast timber should not establish its position in markets in which Burma teak at present enjoys a practical monopoly. The attention which the so-called Indian Laurel (Terminalia tomentosa) attracted at the British Empire Exhibition will, it may be hoped, stimulate a demand for this class of wood, the sale of which on a small scale in the London market has proved to be remunerative.

10. The Government note with interest the initial success of the experiment in natural regeneration of evergreen forests following on a system of clear-felling but consider that at this stage it would be premature to come to any definite conclusion.

11. The failure of the Russellkonda Saw-mill to earn a profit in the second year of full working was disappointing, but the Government understand that the figures for the current year are more encouraging. The experience gained will be of great value to the department in the working of the mill which is now in the course of erection at Olavakode and of the new plant at Beypore which has recently been sanctioned.

12. The Government observe with satisfaction the progress of forest panchayat system and the success with which many of the panchayats worked. Reorganization of the panchayat staff is under consideration. The future of the 'Forest village system' must still be considered doubtful in view of the varying results in different districts but the Government consider that the experiment is worth continuance and extension to new localities.

13. The financial results of the year were an improvement over those of the previous year but as observed by the Chief Conservator, the fact that the Sixth Circle which contains the largest area of valuable timber was the only circle to show a deficit suggests that there must be some radical defect in the past system of working. The Government trust that the expenditure incurred on new methods of exploitation in this area will be justified by a proportionate expansion of revenue.

14. The Government consider that the new form in which the administration report is cast has enabled the Chief Conservator to

give a clearer and more concise view of the activities of the department in a vear which, as a whole, may be characterized as one of steady progress on new and improved lines.

(By order of the Governor in Council)

G. T. H. BRACKEN,
Secretary to Government.

To the Chief Conservator of Forests.
,, Accountant-General.
,, Secretary to the Government of India, Department of Education, Health and Lands (with C.L.).
,, Inspector-General of Forests (with C L.).
Editors' Table.

Procgs. No. 295, Press, 16th October 1924

Administration Report—Forest Department—1923-24.

H. TIREMAN, Esq.,

Acting Chief Conservator of Forests.

Proceedings—No. 295, Press, dated 16th October 1924.

I have the honour to submit the progress report of Forest Administration in the presidency for the year ending 31st March 1924 with the following review :—

In accordance with the orders of Government my review is submitted separately from the reports of the Conservators. It is illustrated with photographs and is printed in a form which, it is hoped, may prove more attractive to the general public than previous reports which embodied along with the review the reports of each Conservator.

CONSTITUTION OF STATE FORESTS.

ALTERATION IN AREA.

2. About 20 square miles of reserved lands were finally settled under the Forest Act, and 3 square miles were added by the rectification of boundaries and recomputation of areas. About 24 square miles were disforested chiefly to provide lands for the extension of cultivation, in the districts of Anantapur 2 square miles), Guntūr (3 square miles), South Salem (2 square miles), South Kurnool (3 square miles), Chingleput (2 square miles), Chittoor (2 square miles), North Vellore (3 square miles) and North Coimbatore (4 square miles). 107 square miles were excluded (106 square miles in the North Coimbatore division) as a result of re-computation of areas.

The net result was a decrease of 109 square miles in the area of the reserved forests which at the end of the year was 18,956 square miles. The area of reserved lands decreased from 192 to 172 square miles owing to the operation of forest settlement.

FOREST SETTLEMENT.

3. Settlement operations were in progress in respect of 151 square miles, the principal forests concerned being the Mudumalai block in the Nilgiris (75 square miles) and the Paithur block in South Salem division (20 square miles).

DEMARCATION.

4. 94 miles of boundaries were demarcated (chiefly in Lower Gōdāvari, South Salem, Kollegal and Madura divisions) at a cost of Rs. 2,221. The demarcation of 21,599 miles of boundary lines was repaired. 656 miles of boundary lines remained to be demarcated at the close of the year.

SURVEY.

5. A Survey of India party was engaged in defining the disputed portion of the boundary between the Bastar State and the Cherla range in the Upper Gōdāvari division, and another party surveyed 5·48 square miles of reserves in the North and West Cuddapah divisions on the one inch scale.

Madras Survey parties carried out boundary surveys in Kistna, Salem, Malabar and Trichinopoly districts.

MANAGEMENT.

WORKING PLANS.

6. A working plan to regulate the grazing over an area of 117 square miles in the forests of the Gooty range in the Anantapur division and one for small timber, fuel and bamboos for 85 square miles in the Chandragiri range in the Chittoor division were sanctioned during the year. Working plans for the Sirvel range in the South Kurnool division and for the South and West Vellore divisions were completed and are awaiting sanction. A reconnaissance for the Owk and Gundlakama ranges in the South Kurnool division and one for the forests of the Wynaad were completed. Revised working schemes for the Mangrove forests of the Kandikuppa reserve in the Lower Gōdāvari division and for the bamboo and fuel areas in the Central Salem division were sanctioned. As regards the preparation of simple schemes to meet the demands of the villagers for agricultural implements and small timbers referred to in paragraph 9 of G.O. No. 315, Development, dated 18th February 1924, on the last year's report, I have received the Conservators' reports and am submitting a separate report to Government.

In my review last year I drew attention to the pressing need for working plans for the more important forests. It has not been possible to make much progress in this direction but some exceedingly useful work in the way of mapping and enumeration of the stock was carried out by the Logging Engineer in the Chenat Nair forests. The methods used by this officer are those which have been evolved by the lumber industry on the Pacific Coast of the

United States and are a great advance on any hitherto employed in India. Topographical work and enumeration are done simultaneously. The topographical map is divided into squares of two acres each and the results of the enumeration are depicted on the map in such a way that it can be seen at a glance how much timber exists on each block. The map is prepared on a large enough scale to show rock outcrops and other obstructions, and this renders it possible to lay out a system of roads on the map and to decide how each piece of forest shall be exploited.

ROADS AND COMMUNICATIONS.

7. The chief new work of the year was the Mount Stuart Ghat road, 6 miles and 3 furlongs of which were constructed at a cost of Rs. 68,236. Hitherto the only means of communication between the Mount Stuart forests and the outside world has been a very steep cart-track along which timber can be carted down with difficulty but no loaded cart can go up. The new road which will very shortly be completed will not only cheapen extraction of timber but will very greatly facilitate inspection of the operations in progress in the forest.

A sum of Rs. 6,011 was spent on the collection of metal and on spreading and consolidating it over about 5 miles of the Chedleth-Sultan's Battery road in the Wynaad. The two new roads in the Javadi hills referred to in the last year's report were opened during the year.

The total expenditure on new works amounted to Rs. 1,08,083 and on repairs to Rs. 94,230 as compared with Rs. 1,37,655 and Rs. 95,504 in the previous year, the decrease being due to financial stringency. 176 miles of new roads were made and 1,419 miles were repaired as compared with 204 and 1,242 miles, respectively, in the previous year.

BUILDINGS.

8. The total expenditure on buildings amounted to Rs. 1·45 lakhs against 1·62 lakhs in the previous year. A sum of Rs. 7,231 was spent on the reconstruction of buildings at Nilambur damaged during the Mappilla rebellion, the expenditure on this account during the previous year being Rs. 17,006. Miscellaneous buildings such as inspection bungalows, range offices and subordinates' quarters were constructed in various divisions.

As has been stated on several previous occasions, the department is seriously handicapped by the lack of buildings especially in the more important timber forests where it will be necessary in the near

future to incur considerable expenditure in this direction. Accommodation is also very limited in headquarter stations and the question of providing District Forest Officers with a cheaper type of residence is now engaging attention.

Other Works.

9. Rupees 11,048 were spent on the construction and repair of wells, the improvement of water-supply in the forests and eradication of rank vegetation. This sum includes Rs. 6,667 spent on improving the water-supply in grazing grounds by the construction of wells and the repair of wells, tanks and springs. Those wishing to do so were permitted to repair water-sources in reserves at their own cost.

Improvements to the Paishwani river in the South Mangalore division over a length of 7 miles were carried out by the Public Works Department at a cost of Rs. 35,378; the work is reported to have facilitated the transport of timber from the Parappa forests to Kasaragod. Improvements were also effected over 6 miles of the Kumaradhari river in the same division and boats carrying fuel can now be taken down this river from a reserve which was previously exploitable only by carts.

LIVESTOCK.

Elephants.

10. The number of elephants in charge of the department at the beginning of the year was 113 valued at Rs. 3,57,550 including four baggage elephants working in Upper Gōdāvari and West Kurnool divisions. Nineteen elephants were captured, 10 were born in captivity, 15 died and 23 were sold and the stud at the end of the year was 104 valued at Rs. 3,42,350. A sum of Rs. 35,855 was realized by the sale of 23 elephants.

Capturing operations were conducted in the South Coimbatore, the Nilgiris, the Wynaad and Nilambur divisions and resulted in 19 captures (viz., 1 in South Coimbatore, 10 in the Nilgiris, 3 in the Wynaad and 5 in Nilambur) as compared with 32 in the previous year. Two captures died and five were sold for Rs. 7,365. One has died since the close of the year and the remaining eleven valued at Rs. 14,850 are reported to be in good condition. The cost of the operations was Rs. 6,239 as against Rs. 7,222 in the previous year. Kheddah operations in the Mysore forests, the constant blasting incidental to the Mount Stuart Ghat road construction and shortage of fodder due to an unusually short

PLATE No. 1.

TRAINING SCHOOL FOR CAPTURED ELEPHANTS.

monsoon and to the flowering of bamboos account for the fact that only 19 elephants were caught as compared with 32 in the previous year.

Plate No. 1 depicts the training of the young elephants after capture. It is found that circus tricks, such as the one shown, are an excellent medium for teaching obedience to words of command.

CATTLE.

11. 227 buffaloes and bullocks were in stock at the beginning of the year valued at Rs. 18,584. Seventeen died, 21 were sold, 9 were destroyed and 2 were killed by tigers. Thirty-nine animals (17 buffaloes and 22 bulls) were purchased in the South Coimbatore division and 7 bulls were confiscated in forest offences in the South Kurnool division. The stock at the end of the year was 224 animals with a book value of Rs. 19,274.

FOREST CONSERVANCY.

BREACHES OF THE FOREST ACT.

12. The following table compares the forest offences of all kinds reported during the year with those of the previous year :—

Cases.	Injury to forests by fire.		Unauthorized felling.		Unauthorized grazing.		Other offences.		Total.		Average of three years ending 1922-23.
	1922-23.	1923-24.	1922-23.	1923-24.	1922-23.	1923-24.	1922-23.	1923-24.	1922-23.	1923-24.	
Cases taken to court.	31	47	5,132	6,080	1,636	2,161	381	377	7,180	8,665	7,080
Cases compounded.	74	85	16,579	15,628	6,043	4,938	1,015	804	23,711	21,455	19,806
Cases undetected.	1,505	1,051	452	489	19	18	7	23	1,983	1,586	1,734
Total ..	1,610	1,183	22,163	22,197	7,698	7,117	1,403	1,209	32,874	31,706	28,620

The number of offences reported was much the same as during the previous year, and was higher than the average for the preceding three years ; I am not prepared to hazard a guess as to the reason for the increase. Of the 30,205 cases disposed of including the pending cases of the previous year, 9,023 were taken to court, 19,719 were compounded and 1,463 were withdrawn, the corresponding figures of the previous year being 30,878, 7,491, 20,790 and 2,597 respectively. Of the 9,023 cases disposed of by Magistrates, 6,448 ended in conviction and 2,575 in acquittal, the percentage of acquittal being nearly 28 per cent against 18 per

cent in the previous year. The increase is chiefly due to the fact that the number of cases compounded after being taken on to the Magistrate's file was larger than in the previous year. The largest number of acquittals occurred, as in the previous year, in the III Circle, and of a total of 1,016, nine hundred and nine cases (or 89 per cent) were acquitted on payment of compounding fees, 29 cases were withdrawn by the District Forest Officers and only 78 cases (or 7·6 per cent) acquitted after actual trial.

Rupees 2,81,310 were realized as compounding fees against Rs. 2,72,080 in the previous year. The average fee per case and person was Rs. 14–4–3 and Rs. 6–4–1 respectively against Rs. 13–5–7 and Rs. 6–3–6 respectively in the previous year.

PROTECTION FROM FIRE.

(*Calendar year* 1923.)

13. The system of early burning under departmental supervision was continued in Upper Gōdāvari, the three divisions of Kurnool, North Coimbatore, Kollegal, South Mangalore, the Nilgiris and the Wynaad and was extended during the year to the three Cuddapah divisions, Chittoor, North Vellore, North Salem and North Mangalore divisions. The results on the whole were good. With reference to the remarks of Government in paragraph 11 of G.O. No. 315, Development, dated 18th February 1924, Conservators report that generally the people do not seem to care which system is adopted, that in some cases (e.g., South Kanara) the early burning system is preferred and that in very few cases have any objections been raised to it. Regarding Cuddapah, the district specially mentioned by Government as disliking the new system, the Conservator writes as follows :—

"The attitude of the people towards early burning was on the whole that of indifference. They got their grass as usual by free removal in sufficient quantity and had also fresh green grass in the forest for their cattle as a result of these early burning operations.

"In North Cuddapah on two different occasions the ryots asked that early burning operations might be delayed for a month or so ; but when it was explained to them why this could not be done they understood and did not press the matter any further.

"In South Cuddapah early burning is said to be popular and not a single petition from the ryots complaining against it was received.

"In West Cuddapah only two complaints were received about scarcity of fodder on account of early burning which were

found to be more imaginary than real. The first relates to a petition received by the Collector for opening the closed pentas in reserves for grazing about the middle of March 1924. When the concession was granted they refused to avail themselves of the concession as the grazing year for which the new permits would be valid was drawing to a close. In the second case the petitioners were found to be selling the grass obtained by the concession of free removal to cartmen."

The year was a favourable one except in Upper and Lower Gōdāvari where considerable areas were burnt. Early burning was carried out over about 3,855 square miles as against 2,000 square miles in the previous year. The area over which special protection was attempted was 5,811 square miles, of which 320 square miles (5·5 per cent) were burnt, the figures for the previous year being 5,480 square miles, 597 square miles and 10·9 per cent respectively.

The expenditure during the official year 1923–24 was Rs.59, 929. In 1922–23 it was Rs. 78,854 and the average expenditure during the previous five years was Rs. 1,18,417. This very considerable reduction in expenditure has been brought about by the adoption of the system of early burning.

SUPPLY.

TIMBER.

14. The output of timber was 99,520 tons of 50 cubic feet against 104,980 tons in the previous year; 26,260 tons were extracted by departmental agency and 65,540 tons by purchasers as compared with 23,500 and 76,160 tons respectively in the previous year. In last year's review the figures quoted were tons of 40 cubic feet; I have adopted here the more usual unit of a ton of 50 cubic feet. The increased departmental extraction is attributed chiefly to the resumption of fellings in Ganjām which had been stopped in 1922–23 to prevent over-stocking in the Russellkonda depot. The decrease in the quantity removed by purchasers is largely due to the change in the factor of conversion for timber from the unreserved lands in North Mangalore division; the value was taken at 3 annas per cubic foot instead of 1 anna adopted in the previous year.

Apart from timber sent to London to be shown in the British Empire Exhibition; 15,951·64 cubic feet of teak, rosewood, laurel (*Terminalia tomentosa*), *Lagerstromia lanceolata*, *Cedrela Toona*, *Mesua ferrea*, *Pterocarpus Marsupium and Calophyllum tomentosum* were sent to Messrs. Howard Bros. & Co. Part of this was to provide a stock of timber to be sold to buyers who might be attracted by the exhibits, and part was in the ordinary course of business. The London timber trade continued very slack and sales during the

year amounted only to 509 cubic feet. Since the business with Messrs. Howard Bros & Co. was inaugurated the total sales to the end of the year were 4,333 cubic feet on which a *net* profit of about Rs. 3 per cubic foot was realized. Although this compares very favourably with the profit obtainable in India (except in the case of teak), the volume of the business at present is almost negligible, and must remain so until the timber trade improves. Messrs. Howard Bros. & Co. were appointed during the year to be sole agents to the Madras Government for the sale of Indian timber in Europe.

FUEL.

15. 23,567 tons of fuel were removed by departmental agency and 319,267 tons by purchasers against 21,033 and 304,533 tons respectively in the previous year. Prices of fuel in the large towns showed a tendency to decrease. The prices in Madura and Tanjore were Rs. 20 and Rs. 16 against Rs. 24 and Rs. 22-8-0 in the previous year.

BAMBOOS.

16. The total value of bamboos removed from the forests by all agencies during the year was Rs. 4·03 lakhs against Rs. 4·08 lakhs in the previous year.

SANDALWOOD.

17. 710 tons of sandalwood were sold for Rs. 7,86,118 (at Satyamangalam 402 tons, at Tirupattur 259 tons and at Vellore 49 tons). The average price realized was Rs. 1,108 per ton against Rs. 1,182 in the previous year.

The quantity sold was very considerably larger than the average of past years, and it is improbable that extraction on such a large scale is justifiable as a permanent measure. I have, however, purposely risked exceeding the possibility for the time being in order to provide the funds which are urgently required at present for the development of the more valuable timber forests. When once these commence to yield a reasonable profit from which further development can be financed, it may be necessary to curtail the exploitation of sandalwood.

GRAZING.

18. 20·7 per cent of the total area of reserved forests in the Presidency was closed to grazing, either throughout the year (16·3 per cent) or for part of the year (4·4 per cent). The areas closed were more or less the same as in the previous year. For grazing in the open area of 16,043 square miles permits were issued for 2,141,770

animals against 2,037,062 animals in the previous year. 93,299 animals were allowed free grazing during the year against 74,177 in the previous year, the increase being due to concessions allowed in Salem, Coimbatore, North Arcot, Bellary, Anantapur, Kurnool and Chittoor divisions on account of the unfavourable season.

The incidence of grazing works out to 4·59 acres per animal as compared with 4·88 acres in the previous year.

19. *Removal of forest produce by right holders and free grantees.*—The estimated value of forest produce removed by free grantees and right holders amounted to Rs. 87,496 against Rs. 62,207 in the previous year, the increase being chiefly due to free grants made in connexion with the floods on the West Coast and the cyclone in the Northern Circars.

SYLVICULTURE.

SECTION I.

(i) *General progress of areas under regeneration.*

20. The most important areas under regeneration are situated in

(*a*) The Ghumsur forests in Ganjām.
(*b*) The Upper Gōdāvari forests.
(*c*) The Mount Stuart deciduous forests in South Coimbatore.
(*d*) The Nilambur deciduous forests.
(*e*) The Wynaad deciduous forests in the Wynaad and Nilgiri divisions.
(*f*) The Nilgiri eucalyptus plantations.
(*g*) The deciduous forests of North and South Mangalore.
(*h*) The Chenat Nair forests—chiefly evergreen.
(*i*) The Papanasam evergreen forests in Tinnevelly.

Satisfactory progress was made in the regeneration of these areas. In the Mount Stuart forests the area (251 acres) operated on by the clear-felling method followed by sowing teak was considerably larger than any area treated in previous years; on the other hand it was found necessary to limit the scope of the sowings in North and South Mangalore and in Tinnevelly.

(ii) *Establishment of reproduction under working plans or schemes.*

(*a*) Mainly natural.

Chenat Nair.—In paragraph 21 of my last year's review I stated that there was every reason to hope that in the evergreen forests exploited under the method of clear felling a considerable proportion of the existing young crop would survive. Experience in the Chenat Nair forests goes far to justify this hope. Inspite

of the severe exposure following the fellings the quantity of young seedlings in the felled areas is more than sufficient, and nothing beyond careful tending is required to make the new crop considerably more valuable than that which previously stood on the ground. Although the method employed in exploiting the forests is called 'clear felling,' it does not entail the removal of every tree; many of the trees are either unsound or too small to make their removal profitable and in consequence a considerable degree of shade remains which appears to be sufficient for the protection of the young crop during the hot weather following the felling. By the next hot weather the young crop may be considered to be established.

Ghumsur.—In Ganjām, the regeneration of sāl following clear felling and burning is all that can be desired, while that of other species in woods where sāl is not predominant appears to be quite satisfactory. Clear fellings were as usual carried out in the plains sāl timber working circle; the area clear felled has not however been reported.

The Nilgiris eucalyptus plantations.—The usual clear fellings for fuel were made in the Ootacamund and Coonoor ranges. The regeneration of these areas is by coppice; the yield from the coppice which in many cases is in its fourth rotation is said to be diminishing and steps are being taken to replant where coppice shoots fail.

(b) Mainly artificial.

Mount Stuart forests.—251 acres clear felled in the previous year were sown chiefly with teak; where as is often the case after felling and burning the soil proved to be too waterlogged for teak, seed of *Terminalia tomentosa* was sown. The operations in these forests which were commenced on a small scale in 1919 have been most successful and by the end of the year under report 431 acres had been stocked with an established crop chiefly consisting of teak. Recent inspection of the 1922 area disclosed the existence of a dense under-crop of *Adina cordifolia* which had come in naturally; this species is probably far too much of a light-demander to grow under teak but it will serve the useful purpose of assisting in the formation of a mixed crop.

Nilambur.—The usual clear fellings both of mature teak plantations and natural forests were undertaken and 175 acres were planted or sown; the chief species raised was teak, but 3 acres unsuitable for that species were sown with *Lagerstromia Flos-Reginae* and *Terminalia tomentosa*. Some of the plantations suffered severely from the floods of August 1923 and subsequently from a very severe hot season. Plate No. 2 shows a three-year old crop of teak at Nilambur.

PLATE No. 2.

TEAK AT NILAMBUR. A three-year old crop.

(c) Afforestation.

Very little work of this kind was undertaken. In North Coimbatore experimental work was continued in the direction of extending some small sholas (evergreen forests at high elevation) by sowing suitable species; in the Nilgiris in order to restore the tree growth destroyed by fires on the kundahs seed of various species suitable to the locality was sown, and root-suckers of *Acacia dealbata* were planted.

(iii) *Plantation and other forms of regeneration not under working plans or schemes.*

Upper Gōdāvari.—275 acres were clear felled. The debris of the fellings was collected into heaps and burnt, and the burnt patches were sown with teak seed. This operation appears to give promise of success; the regeneration from teak coppice is especially good considering the comparatively small rainfall.

Nallamalais (South Kurnool division).—Seventy-three acres were clear felled in four different localities, burnt, and sown with teak, *Pterocarpus Marsupium, Gmelina arborea* and *Terminalia tomentosa.* Germination was fairly successful, but the growth is slow and artificial regeneration must be extremely expensive owing to the extent to which weeding is required. It would appear to be out of the question to sow or plant in the ordinary way with any prospect of financial success, but stump planting may prove feasible and experiments will now be undertaken to determine the cost of adopting this method which consists in keeping seedlings in a nursery until they are vigorous enough after cutting off most of the stem and root to throw up coppice shoots which will overtop the weeds. In the better portions of the Nallamalais natural regeneration is plentiful and in all probability will suffice to provide a new crop if properly treated. In clearings (such as fire lines) regeneration of *Hardwickia binata* (a very valuable tree) is often profuse, and experiments will now be undertaken with a view to inducing similar regeneration where mature trees exist.

Tinnevelly.—Fifty-five acres were planted in the Papanasam forests with teak. The experimental regeneration work in the evergreen forests referred to in paragraph 21 of last year's review was continued; very considerable success has been obtained but as I have already stated there is reason to hope that nature will do all that is required. The work done in Tinnevelly however will provide valuable data should it be found necessary to supplement natural by artificial regeneration.

North and South Mangalore.—The existing establishment cannot do much more than carry out the tending required in the somewhat

extensive crop of hopea which has already been established, and it has been found necessary considerably to reduce the scale on which sowings are undertaken. 535 acres in North Mangalore were prepared for sowing and in the South Mangalore division sowing was carried out over an area of 336 acres. A further area of 32 acres clear felled for timber was sown with deciduous species. The necessity for curtailing the sowing operations is a matter for regret as it has been shown to be easy and inexpensive to establish a young hopea crop under the existing crop of deciduous species, and as hopea yields an exceedingly valuable timber the cost should be amply repaid when the trees come to maturity. The present financial stringency makes it impossible to increase the establishment until exploitation of the more valuable forests of the district has been organized and it becomes possible to obtain considerably more revenue than the district yields at present.

Wynaad (*Wynaad and Nilgiri divisions*).—In the Wynaad clear fellings were continued and 80 acres were felled in two ranges. Sixty-one acres were dibbled with teak seed, 2 acres with *Terminalia tomentosa* and 3 acres with *Dalbergia latifolia* and *Pterocarpus Marsupium*, while 9 acres were planted with teak stumps ; the results have not been reported. In the Mudumalai range of the Nilgiri division an area of 100 acres which had been felled during the previous year was burnt for planting during the rains of 1924.

II. Tending of the growing stock.

21. Tending operations were carried out in all plantations and regeneration areas where necessary. In the natural sandal forests in the IV Circle the crop was tended by removing overhead shade, climbers, etc. In Cuddapah climbers and trees interfering with the more valuable trees (especially *Pterocarpus santalinus*) were cut out. Thinnings and improvement fellings were undertaken in various forests. One of the most important works undertaken was the tending of the natural regeneration of hopea in the Nalkur reserve in South Mangalore division where a very fine young crop only awaits the admission of light to become an extremely valuable asset. Plate No. 3 shows (somewhat indistinctly) a natural young crop of hopea after tending.

Research and Experiments.

22. Mr. J. M. Sweet, Deputy Conservator of Forests, was in charge of sylvicultural research throughout the year, and continued to study the germination and early growth of the principal evergreen species of the Western Ghats, and of *Terminalia paniculata*, *Xylia xylocarpa*, *Bombax malabaricum*, *Lagerstromia lanceolata and Gmelina arborea*. Experiments in raising an underwood of *Artocarpus hirsuta* and *Hopea parviflora* in the Nilambur teak plantations were

PLATE No. 3.

NATURAL REGENERATION OF *Hopea parviflora*.

continued. These experiments have been singularly unfortunate; the Mappilla rebellion interfered with them in 1921–22 and 1922–23, torrential rains followed by a severe drought ruined them in 1922–23, and it is to be feared that the recent unprecedented floods will once more have swamped all the seedlings. Sufficient however has been learnt to show that given normal conditions it is a comparatively easy matter to establish an underwood of hopea or *Artocarpus* under a ten year old teak crop. The report on the work done during the year is being published in a separate bulletin.

DEVELOPMENT.

(i) RUSSELLKONDA SAW MILL.

23. Messrs. Parry & Co. continued to manage the mill during the year as agents for Government and their local agent reports as follows regarding its working :—

"*Mill working.*—On the 1st April 1923, the mill entered upon its second year of working. During the period under review the plant ran smoothly and well and no breakdown or stoppage of importance occurred. The efficiency of the operatives had improved with the result that the intake increased by 31,000 cubic feet. A pleasing feature was that no accident occurred to any of the men engaged on the various machines during the year.

"In the early months of the year the work of the mill was seriously interfered with by a shortage of water for the boiler, and the Forest Department commenced the construction of a new well in the compound. This well was still under construction at the close of the year.

"*Logs.*—During the year the intake of logs to the mill was 158,000 cubic feet and from this quantity 53,000 cubic feet of finished timber was outturned. For the first nine months the percentage of wastage was very high but by December all the old stocks of logs have been disposed of and the more recent fellings were operated upon, the result being that wastage fell from 70·60 per cent for the first nine months to 55·87 per cent for the last quarter of the year.

"Although the quality of logs cut during the last quarter improved considerably, their girth and, most particularly, their length left much to be desired, the average size of log being under 10 cubic feet. Logs of such small cubic contents caused a considerable loss of time in conversion owing to the fact that so many of them had to be handled to make up a reasonable day's work.

"*Markets and prices.*—The general timber market remained in a more or less comatose condition throughout the year, but towards the close there appeared to be a slightly increased interest and more

enquiries were coming through from the Calcutta side. Owing to considerable orders for large section beams the mill was able to slightly increase its level of selling prices.

"*Sales.*—In spite of the abovementioned condition of the market the mill was able to more than double its sales as compared with the previous year, the quantity sold being approximately 41,500 cubic feet valued at Rs. 1,42,000.

"*Future prospects.*—The mill may be said to have passed its initial stage during the year and to have settled down to steady work. I feel confident that, given reasonably sound logs and a revival of the timber market, the future outlook is most promising."

The result of the year's operations was a loss of Rs 36,082-4-2 including an interest charge of Rs. 28,179-1-0; the loss during the previous year was Rs. 6,216-0-9 exclusive of interest. As regards the size of logs, it is impossible to obtain large logs in any quantity and there is no getting away from the fact that the Ghumsur forests contain little timber of the size for which the machinery was designed, while much of it is unsound. In spite of this however and of a very depressed market the mill was working at a profit towards the end of the year. The agents have accomplished a good deal in organizing a market for sawn sāl and it is satisfactory to note that sales were more than doubled.

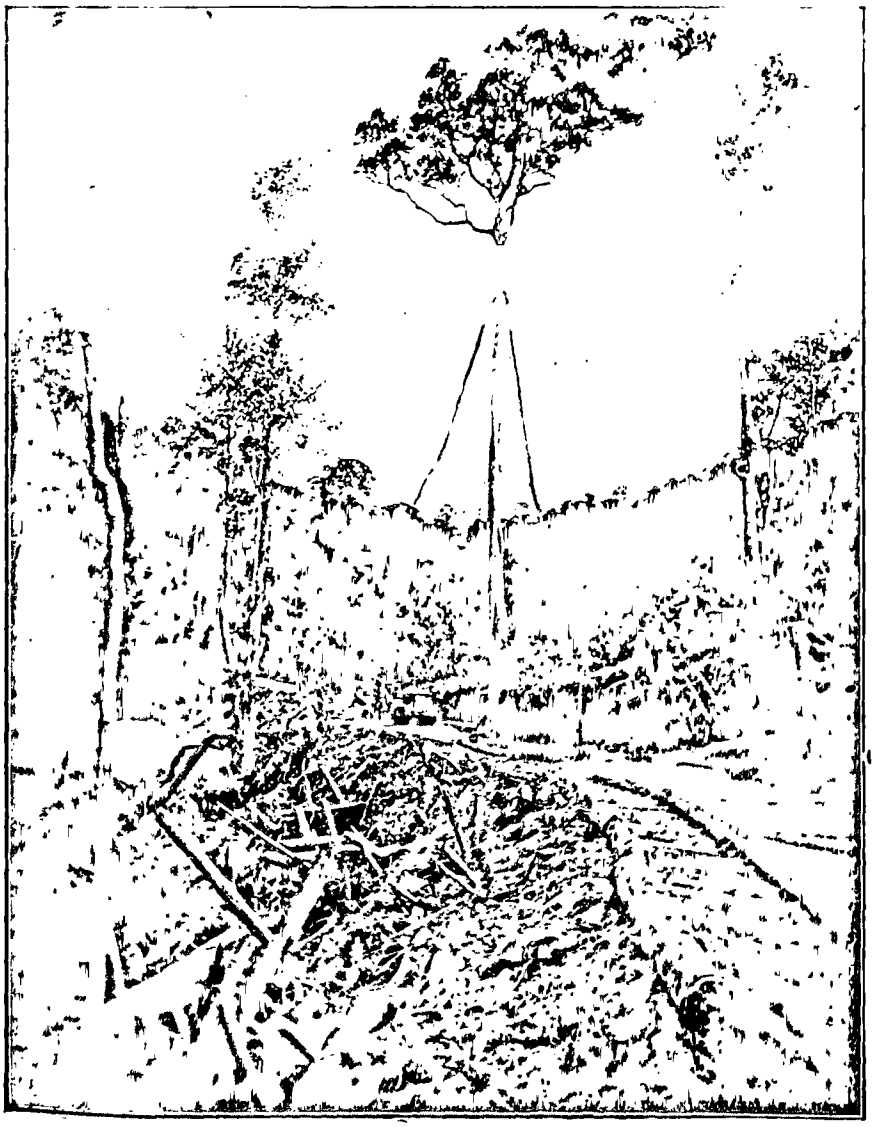
The new well has since been sunk and it is hoped that sufficient water will now be available.

(ii) CHENAT NAIR FORESTS.

24. The exploitation of the Chenat Nair forests was continued and 92,182 cubic feet of timber were extracted. The report of the auditors for the year has not yet been received. Great improvements in the working of the logging machinery were introduced by the Chief Forest Engineer and the Logging Engineer with the result that considerable economy was effected while the quantity extracted was increased. The best outturn in any one month in the previous year was 10,098 cubic feet and this was far above the average; the outturn in March 1924 was 16,088 cubic feet. As an incentive to better production Government sanctioned the payment to the subordinates concerned of a bonus of 3 annas for every cubic foot over and above 12,000 cubic feet of timber delivered monthly at Olavakkode.

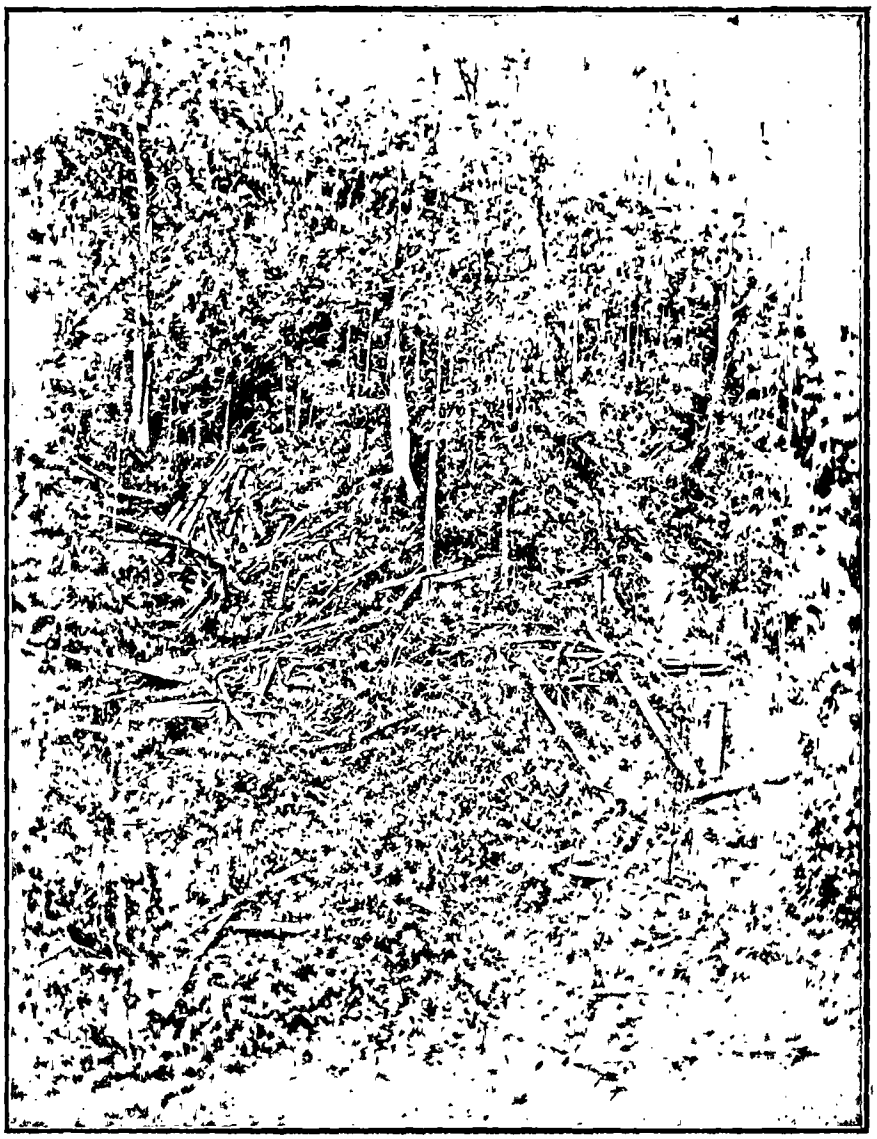
The work has been seriously hampered by malaria. It was hoped when buildings for the staff were constructed on Sappal ridge that a healthy site had been found, but unfortunately this has not proved to be the case and the staff has suffered very severely.

PLATE No. 4.



SPAR TREE WITH CABLE.

PLATE No. 5.

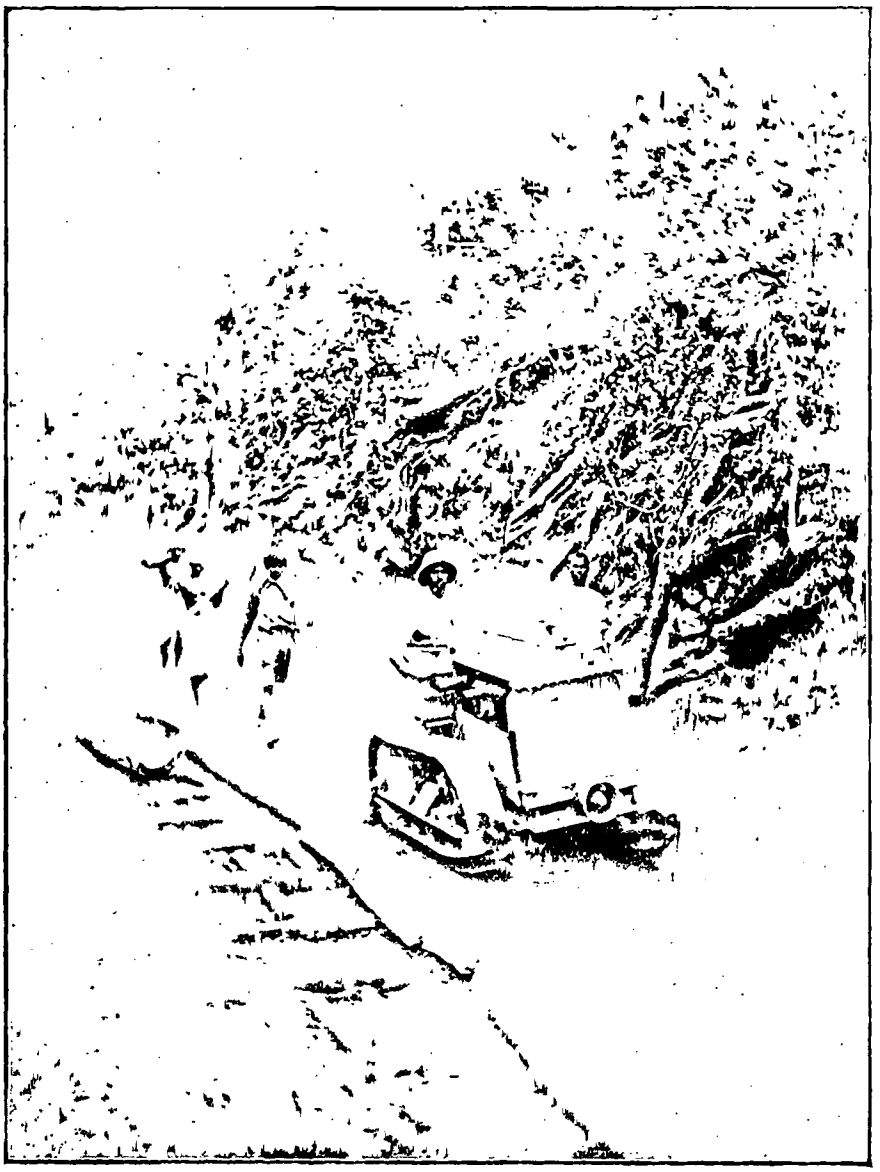


LOGS TO BE 'YARDED.'

PLATE NO. 6.

SIXTEEN MEN DRAGGING ONE LOG.

PLATE NO. 7.



'CLETRAC' HAULING LOGS ON POLE ROAD.

PLATE NO. 8.

VIEW IN PAPANASAM FOREST.

In my review of the previous year (paragraph 24) I commented on the fact that as it was necessary in the absence of a saw mill to limit exploitation to the timbers for which a market could be assured, the machinery employed could not work economically. Sanction of the Government and the Legislative Council has now been accorded to the erection of a saw mill and seasoning plant at Olavakkode which, it is hoped, will shortly commence work. There is every prospect that sufficient orders will be forthcoming to keep this mill fully employed and I hope that the Chenat Nair project will before long be converted into a paying proposition.

The following photographs give some idea of the methods employed in the extraction of the timber: Plate No. 4 shows the 'spar tree' over a block near the top of which runs the wire cable by means of which the 'yarding' tractor (unfortunately out of the picture) hauls the logs to the dragpath from the valley on the left of the picture. Plate No. 5 shows the logs lying in the valley in question waiting to be 'yarded' or hauled up to the dragpath. (These logs have been dragged down to the bottom of the valley by manual labour.) Plate No. 6 shows the pole road running along the dragpath with 16 men dragging one log. Plate No. 7 shows the improvement effected over manual labour by the use of a tractor: a small 'cletrac' is dragging three logs along the pole road.

25. The Chief Forest Engineer made preliminary investigations into the possibility of exploiting the Papanasam forest in Tinnevelly for timber, paper pulp, fuel and matches, and the forests in the neighbourhood of Someswar in the North Mangalore division for timber. Both these projects give promise of yielding a considerable profit, but they will require much detailed examination before definite proposals can be put forward. Plate No. 8 gives some idea of the country to be exploited in the Papanasam forest.

FOREST PANCHAYATS.

26. The work of the special panchayat staff was confined to the following eleven districts, as in the previous year:—

North Arcot.	Cuddapah.	Trichinopoly.
South Arcot.	Chittoor.	Guntūr.
Chingleput.	Bellary.	Kistna.
Salem.	Coimbatore.	

358 square miles of forests were handed over to panchayats, and the total area under panchayat management at the close of the year was 858 square miles managed by 457 panchayats. The Forest Panchayat Officer reports that in 137 cases the administration was good and in 169 fair. Several of the better panchayats were inspected by Conservators after the close of the year and their

reports were on the whole favourable. In some cases it was found that protection was better than it had been under departmental management, while several panchayats had successfully raised small plantations of trees and had effected improvements by providing water facilities in and removing rank growth from grazing grounds. Some of the most efficient panchayats were found in the Guntūr district; this is in marked contrast to the lawlessness which prevailed there only a few years ago. When it is borne in mind how short a time has elapsed since the panchayat staff was organized, and how many difficulties there are in the way of organizing the administration of forests on communal lines, I venture to think that the progress made augurs well for the future of the system. Towards the close of the year a conference of panchayatdars was held at Saidapet presided over by the Hon'ble Sir Arthur Knapp, K.C.I.E.; it served to bring together those interested in the movement in various parts of the country and to disseminate sound ideas on the value of the minor forests to the rural community and the consequent necessity for protecting and improving them.

It became obvious during the year that the panchayat staff as originally sanctioned had reached the limit of its capacity to organize new panchayats and to supervise the working of those previously formed and proposals for increasing the staff and extending the sphere of its activities are now under the consideration of Government.

The spread of the panchayat movement rendered possible the abolition of two ranges—one in Bellary and the other in Cuddapah.

In Kurnool, Coimbatore, Anantapur, Tinnevelly, Madura, Nellore and Ramnad districts 38 panchayats working under the control of the Revenue Department administered an area of 124 square miles.

The forest village system was in force during the year in certain reserves in the South and West Vellore, North and South Coimbotore, Palghat, East and South Salem, and North and South Mangalore divisions. The system on the whole worked satisfactorily, especially in the Tiruvannāmalai range in the South Vellore division. The panchayats in this range held regular meetings and maintained their accounts properly. Some effected improvement to the forests by providing water facilities for cattle and by carrying out sowing operations. Owing to unsatisfactory work it was necessary to dissolve certain panchayats formed under this system in the East Salem and North Mangalore divisions. The fifth annual darbar for the Tiruvannāmalai panchayats was held during the year and refunds of grazing fees were distributed. The meeting was largely attended by the surrounding village panchayatdars and

forest villagers and went a great way to demonstrate the advantages of co-operation in protecting the forests under the forest village system.

FINANCE.

27. The total gross revenue during the year was Rs. 54·87 lakhs as against Rs. 52·73 lakhs in the previous year. The expenditure debited to the Forest Department (including a loss of Rs. 27,459 by exchange transactions in England) was Rs. 46·30 lakhs as against 47·89 lakhs in the previous year. The result was a surplus of 8·57 lakhs as against Rs. 4·84 lakhs in the previous year. There was a surplus in all circles except the Sixth which showed a deficit of Rs. 1·51 lakhs; this was chiefly due to the continued slump in the timber market. The fact that this circle which contains the largest area of valuable timber forests in the presidency should work at a loss is an interesting commentary on the need for forest development in Madras.

The Forest College worked at a loss of Rs. ·60 lakh. General direction cost Rs. 1·18 lakhs, the Engineering branch Rs. ·62 lakh, and the Forest Panchayat staff Rs. ·30 lakh.

GENERAL.

28. In paragraph 27 of my last year's review I stated that 1922–23 had been to a large extent a year of marking time. In the past year, however, the department has begun to move forward. Mr. C. S. Martin arrived from the United States early in October and took up his appointment of Chief Forest Engineer. He brought with him Mr. J. K. Pearce to fill the appointment of Logging Engineer. These two gentlemen were not long in making their presence felt as witness the report of the Chief Forest Engineer printed in Volume II of this report.

Another most important step forward was the appointment of a Forest Utilization Officer. Mr. T. Clear was appointed to this post on 1st April 1923 and on his promotion to act as Conservator Mr. J. W. K. Wernham took his place. The urgent need which existed for an officer who could deal exclusively with the commercial side of the department and be a 'liaison officer' between it and the trade has been conclusively proved by the manner in which the work of this section has expanded. So much is this the case that it has recently become impossible for one officer to cope with it and a second officer has been appointed. Some idea of the extent of the work to be done may be obtained from a perusal of paragraph VI of the Chief Forest Engineer's report referred to above.

A number of exhibits were sent to England for the British Empire Exhibition. Those shown in the Madras Court were

chiefly of a museum type except for a very fine inlaid map in wood and some ornamental screens. The timber exhibit shown by Messrs. Howard Bros. & Co. in the all-India Court, however, is said to be very effective and contains several Madras timbers such as *Terminalia tomentosa*, *Dipterocarpus turbinatus*, teak, rosewood, *Lagerstromia*, *Cedrela Toona* and *Hardwickia pinnata*. Plate No. 9 shows a suite of furniture made of *Terminalia tomentosa*.

The following extracts from the well-known American Lumber journal "The Timberman" for July 1924 are of interest. 'Laurel' is the trade name for *Terminalia tomentosa*:—

"All the woodwork in the Forestry Court of the Indian pavilion is of a very high order, with the first place going to the laurel wood billiard room, in which all the fittings, the panelling and the billiard table have been entirely made in this wood. Throughout the court in fact, this wood can be seen to advantage in many articles, including bookcases, chiffoniers, bureaus, tables, music cabinets and especially in some very beautiful screens."

* * *

"Although admittedly one of the finest woods the world possesses, laurel wood has not yet been received with the enthusiastic acclaim it merits. The magnificent displays at the Empire Exhibition are, however, undoubtedly having an effect on its popularity."

* * *

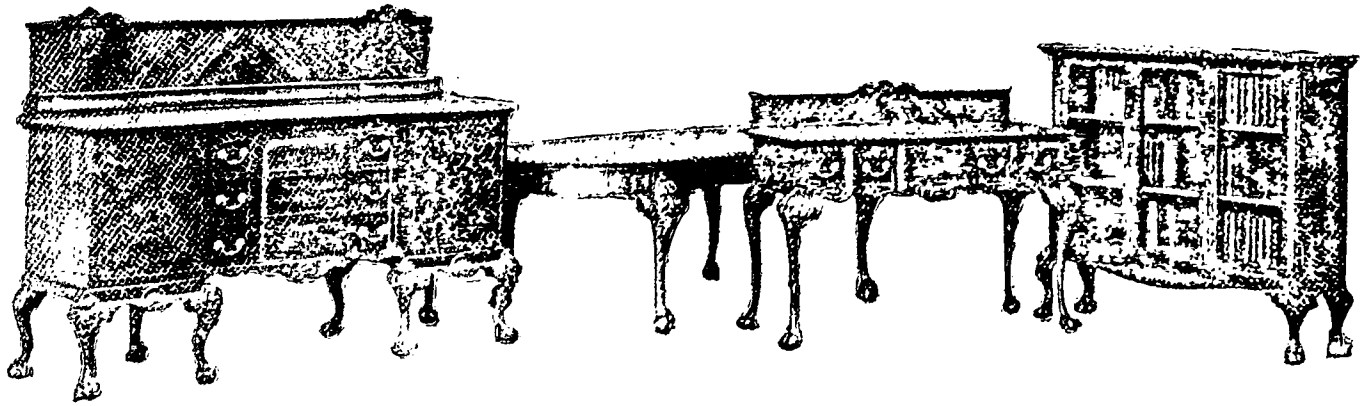
"In the opinion of James Roger, of Garland and Roger, Leith, who has been in the trade for 45 years and has an expert knowledge of hard woods laurel wood is the finest wood he has ever seen. So impressed was he with it that he had the aforementioned billiard table executed in it, with the result that furniture manufacturers who have seen it declare it is probably the finest billiard table ever designed."

Of the two committees appointed for the investigation of forest grievances in the Kurnool and Chittoor districts and referred to in the last report, the Chittoor Committee submitted its report during the year and most of its recommendations were accepted. The report of the Kurnool Committee which was received after the close of the year is under consideration.

FOREST COLLEGE.

29. Mr. C. C. Wilson was the Principal of the college from 1st April 1923 to 5th August 1923 when he was relieved by Mr. W. G. Dyson who was in charge for the rest of the year. Twenty-six students passed out of the college in 1924. Of these, 9 were from the Central Provinces, 5 from Ceylon, 2 from Hyderabad, 1 from

PLATE NO. 9



DINING ROOM SUITE IN LAUREL WOOD (*Terminalia tomentosa*) SHOWN IN THE BRITISH EMPIRE EXHIBITION.

Bihar and Orissa, 1 from the Orissa Feudatory States, 1 from Central India and 7 from Madras (four Government stipendiary students, one Court of Wards student, one from the Vizianagram estate and one private student). One student from Ceylon, the private student and the four Government stipendiary students received Honours certificates. Fifteen students were granted Higher Standard certificates and the remaining five obtained Lower Standard certificates. There were no failures.

VERNACULAR TRAINING SCHOOLS.

30. Vernacular Training schools were held in the I, III, IV and V Circles. The results were satisfactory. Five students from Bihar and Orissa were trained in the school held in the Ganjām district.

H. TIREMAN,
Acting Chief Conservator of Forests.

The following is a summary of the progress made in Forest Administration in the Madras Presidency during the quinquennium ending with the year 1923-24.

2. *Administration.*—The chief features of interest were the creation of a special branch of the department to deal with the exploitation of the valuable timber forests and the engineering problems ancillary thereto and the division of the presidency into six Conservators' circles. As stated by Government in G.O. No. 2293, dated 11th December 1919, the war had revealed the magnitude of the undeveloped forest resources of the State and the necessity for their exploitation, but valuable as are the timber forests of Madras they are for the most part situated in difficult and inaccessible country and it was realised at an early stage that if exploitation was to be successful it must be controlled by men specially trained in the work. Government therefore decided to form an Engineering Branch of the Forest Department and to place it in the first instance under the control of an expert in lumbering. The gentleman selected for this post was Mr. C. S. Martin, an expert of great experience in lumbering practice in the west of the United States, who had for three years previously served as Consulting Forest Engineer to the Government of India. Mr. Martin arrived and took over the new branch in October 1923. A second American expert (Mr. J. Kenneth Pearce) was engaged at the same time as Logging Engineer. On Mr. Martin's arrival, the Forest Utilization Officer who had been appointed in April 1923, the Forest Engineer and the officer in charge of exploitation in the Chenat Nair reserved forest were placed under his orders.

3. The non-co-operation campaign brought about organized defiance of the forest law. This was especially serious in the Guntur district where many cases of violence against forest officials occurred. Several forest guards were murdered. The definite break-down of the movement towards the close of the quinquennium had an important reaction for the better on forest protection. Lawlessness was much less in evidence, the change being specially marked in Guntur. During the Mappilla rebellion in 1921, the Nilambur division was for several months in the hands of the rebels. The District Forest Officer and his subordinates had narrow escapes from death; work was entirely dislocated and most of the buildings were destroyed, or badly damaged.

4. The special 'Forest year' from July to June was abolished in 1920-1921 and the administration reports from that year onwards correspond to the official year.

5. With a view to keep the Government in touch with non-official opinion in regard to forest policy, a standing Forest Advisory Committee was formed in 1921 consisting of non-official members of the Legislative Council presided over by the Hon'ble Member in charge of the forest portfolio. Besides, in furtherance of the policy of enlisting public opinion in local forest matters, committees consisting of the local forest officers, the members of the Legislative Council and other non-official gentlemen were appointed by Government to enquire into the forest grievances in the Coimbatore,

Chittoor and Kurnool districts. The recommendations of the Coimbatore and Chittoor committees were generally given effect to. The report of the Kurnool committee is now under consideration.

6. *Organization.*—The Indian Forest Service was reorganized with reference to the recommendations of the Public Services Commission and the cadre was raised from 43 to 64. 12½ per cent of the posts in the Indian Forest Service were regarded as listed appointments to be filled by the promotion of officers of the Madras Forest Service. The Madras Forest Service was also reorganized with effect from 1st January 1922.

7. The strength of the subordinate executive and protective staff was increased and the pay raised with effect from 1st October 1919. The revision resulted in an increase in the number of Rangers of 37, Foresters 257 and Forest Guards 770 ; the class of ' Deputy Rangers ' was abolished and merged in that of ' Foresters '. The pay of the clerical staff was raised with effect from 1st March 1921 along with the general revision of pay of non-gazetted subordinates in the Presidency and a time-scale of pay fixed. As a measure of retrenchment, the Foresters' cadre was subsequently reduced by 15 per cent, range clerks were reduced to one in all ranges and several clerks, attenders and peons in Conservators' and District Forest offices were dispensed with, as also a number of temporary subordinates such as reserve watchers, tannadars, permit gumastas, bungalow watchers, etc.

8. *Development—Russellkonda saw mill.*—With a view to secure a market for Ganjām timbers, especially sal, a saw mill was established at Russellkonda under the management of Messrs. Parry & Co., and began working in April 1922. In the first year, sal logs measuring 126,571 cubic feet were put into the mill and produced 41,318 cubic feet of sawn timber. The intake in the second year (1923–24) was 158,000 cubic feet from which 53,000 cubic feet of sawn timber were obtained. In the first year the sales realised Rs. 49,929 and in the second, Rs. 1,42,000. The financial result was a loss of Rs. 6,216-0-9 in 1922-23 and of Rs. 7,903-3-2 in 1923–24. This was largely due to the slump in the Calcutta timber market, the large proportion of unsound timber, and the fact that the machinery was designed for timber considerably larger than is found in the forests. The managing agents feel confident, however, that with a revival of the timber market, the future outlook is promising.

9. *Exploitation.*—Until the beginning of the quinquennium the evergreen forests had been looked on as more or less valueless partly owing to their inaccessibility and partly to the fact that much of the timber being unknown was regarded as ' useless '. It seemed absurd, however, that the enormous quantities of timber growing in these forests should be left to fall and rot and in 1919 an attempt was made to exploit the Chenat Nair reserved forest, which—although in very difficult country—is not far from the railway. It was found, however, that mechanical appliances were essential and that to obtain efficient work from machines expert supervision was required. In the absence of such supervision the result has hitherto been a financial loss but much valuable experience has been gained and with the advent of the Chief Forest Engineer and the Logging Engineer and the installation of a saw mill now in course of erection at Olavakkode there is every reason to hope that the exploitation will prove a paying proposition.

10. The Chief Forest Engineer has made preliminary investigations into the possibility of exploiting the Papanasam forests in Tinnevelly and the

forests in the neighbourhood of Someshwar in the North Mangalore division. These forests contain large quantities of fine timber and should prove a great asset to the State.

11. Messrs. Howard Brothers and Company of London were appointed in 1923 sole agents to the Madras Government for the sale of Indian timbers in Europe. Small quantities of timber (chiefly *Terminalia tomentosa*) have been consigned to this firm and have been sold at prices which compare favourably with those obtainable in India. There appears to be a great future before *Terminalia tomentosa* (known in London as "Laurel"); a small parcel of this timber was sold for Rs. 40 per cubic foot. The total sales in England to the end of the quinquennium were 4,333 c.ft. on which a net profit of about Rs. 3 per cubic foot was realised.

12. *Panchayats.*—An important feature of the quinquennium was the development of the forest panchayat system. With a view to examine the question of promoting this system for class V reserves, Mr. D. G. Bles, I.C.S., was placed on special duty for a period of six months in 1920, and as a result of his recommendations a special staff consisting of a Forest Panchayat Officer and six Panchayat Inspectors was appointed. The operations of the staff were confined to the districts of Kistna, Guntur, Cuddapah, Bellary, Chittoor, Chingleput, South Arcot, North Arcot, Trichinopoly, Salem and Coimbatore. At the close of the period under review 858 square miles of forests in these districts had been placed under panchayat management. There were also 38 panchayats administering an area of 124 square miles in districts not under the control of the special staff. The spread of the panchayat movement has already rendered possible the abolition of two ranges, one in the Bellary district and the other in the Cuddapah district and of the Kistna division (since the close of the quinquennium). As the further expansion of the system is beyond the capacity of the existing staff, proposals for increasing the staff and extending the sphere of its activities are now under the consideration of the Government.

13. The forest village system was in force at the close of the period in the South and West Vellore, North and South Coimbatore, Palghat, East and South Salem, and North and South Mangalore divisions.

14. *Sylviculture.*—The quinquennium has witnessed a great advance in sylviculture, a subject which in Madras had not previously received the attention which was due to it. Improvement fellings and the so-called "selection system" have been practically done away with in all important forests in favour of regeneration under the system of clear felling. When exploitation of the evergreen forests was first undertaken it was feared that regeneration would be a difficult matter, but experience shows that the problem is likely to be easy of solution owing to the abundance of natural regeneration, which can easily be supplemented by sowings. Sowing of *Hopea parviflora* has been undertaken with considerable success on a large scale in South Kanara under the shade of a badly grown deciduous crop—the result of shifting cultivation in the past—and some 5,500 acres are now stocked with an established crop of this valuable species.

15. *Research.*—A special officer was placed in charge of sylvicultural research work in the presidency in 1919 and was attached to the VI circle. The results of the experiments and investigations conducted by him are published in the annual bulletins.

16. *Changes in the area.*—The area under control remained practically the same as in the previous quinquennium as shown below :—

	At the commencement of the quinquennium.	At the end of the quinquennium.
	Square miles	Square miles.
Reserved forests	18,712	18,956
Reserved lands	682	172
	19,394	19,128

17. *Forest settlement.*—Forest settlement work is practically complete in the presidency. The area of 500 square miles mentioned in the last report was settled during the period under review.

18. *Demarcation.*—The total length of artificially marked boundaries at the end of the quinquennium was 31,132 miles as against 32,575 miles at the end of the previous quinquennium, the decrease being chiefly due to disforestation.

19. *Surveys.*—About 924 square miles on the two-inches scale and about 404 square miles on the one-inch scale were surveyed by the Survey of India Party chiefly in the districts of Kurnool, Guntūr, Nellore, West Cuddapah and Chittoor. The party was also at work in the South Coimbatore division making $1\frac{1}{2}$" scale maps of the hilly tracts of Udamalpet range and carried out a survey of the Ampthill Downs reserve in the Kodaikanal range, Madura district, and a resurvey of the Cumbum, Palni and Sholavandan ranges in the same district.

20. *Working plans.*—Two important working plans—one for the Nilambur valley forests and the other for the Ghumsur forests in Ganjām—were sanctioned during the period under review. Working plans were in force for 6,258 square miles as against 8,312 square miles in the previous quinquennium. The decrease is largely due to the cancellation of old working plans which had become obsolete. Most of the working plans in force are merely simple arrangements for working fuel and grazing reserves. Except in the case of Nilambur and Ghumsur, there are no working plans for the valuable timber forests and a forward policy in this respect is urgently required.

21. *Communications and buildings.*—The average annual expenditure on communications and buildings and other works amounted to Rs. 4,26,022 as compared with Rs. 2,77,505 in the previous quinquennium, the increase being due to the execution of works which had been postponed on account of the war and to the construction of the Russellkonda saw mills, the Javadi hill roads, and the Mount Stuart Ghat road and the reconstruction of the buildings destroyed by the Mappilla rebels in Nilambur.

22. *Forest offences.*—The average annual number of forest offences was 29,021 against 28,933 for the previous period. There was a small increase in the number of offences under 'unauthorized fellings' from 18,716 to 19,253 and 'other offences' from 1,177 to 1,246, while those under 'injury to forests by fire' fell from 1,318 to 1,292 and under 'unauthorized grazing' from 7,722 to 7,230.

23. *Fire protection.*—The average area under systematic fire protection amounted to 17,040 square miles against 16,060 square miles in the previous period. The system of early burning under departmental supervision—whereby the grass is burnt as soon as it is dry enough, the resulting fire being less severe than if it occurred later in the season and doing very little damage—was introduced for the first time in the Nallamalais in the Kurnool district in 1919–20 and extended to other districts with much success. As a result of the adoption of this system, there has been a considerable saving in the expenditure under fire protection which fell from Rs. 1,19,994 in 1918–19 to Rs. 59,929 in 1923–24.

24. *Protection from cattle.*—One-fifth of the total area of forests was closed to grazing during the year 1923–24 while about one-fourth of the total area was closed during 1918–19. The number of animals grazed slightly increased from 2,045,678 at the beginning of the period to 2,141,770 in the closing year, the increase being chiefly due to grazing concessions allowed in the closing year in the districts of Salem, Coimbatore, North Arcot, Bellary, Anantapur, Kurnool and Chittoor, on account of unfavourable season. The number of animals allowed free grazing increased from 29,075 at the beginning of the period to 93,299 at the end of it. The average grazing incidence during the last year of the period worked out to 4·59 acres per animal. With the extension of the forest village and panchayat systems the villagers have begun to evince interest in the conservancy and improvement of the grazing grounds adjacent to villages.

25. *Yield and outturn.*—The following table shows the annual average outturn of the forests for the two periods :—

—	Timber and fuel.	Bamboos.	Minor forest produce.
	C.FT.	RS.	RS.
1914-15 to 1918-19	25,161,000	3,11,727	18,43,032
1919-20 to 1923-24	24,848,600	3,49,372	18,89,604

The figures have remained more or less constant for ten years ; now that exploitation of the valuable timber forests is being taken in hand a considerable increase may be looked for in the quantity of timber extracted.

26. *Financial results.*—The average annual financial results of the last two periods were as follows :—

—	Revenue.	Expenditure.	Surplus or deficit.
	RS.	RS.	RS.
Average for the period 1914-15 to 1918-19 ..	46,13,000	28,76,000	17,37,000
" " 1919-20 ..	59,53,910	35,16,428	24,37,482
" " 1920-21 ..	46,16,184	34,22,522	11,93,662
" " 1921-22 ..	47,96,900	48,42,366	— 45,466
" " 1922-23 ..	52,72,957	47,89,463	4,83,494
" " 1923-24 ..	54,86,963	46,29,514	8,57,449
Total ..	2,61,26,914	2,12,00,293	49,26,621
Average ..	52,25,383	42,40,059	9,85,324

The deficit in 1921–22 was due to the heavy expenditure incurred during that year on development and to increased salaries and travelling allowances.

27. *Forest education.*—146 students passed out of the Madras Forest College, Coimbatore, during the period, of whom 25 obtained Honours certificates, 81 Higher Standard and 40 Lower Standard certificates. 69 students were subordinates of the Madras Forest Department.

Vernacular Training Schools with a six months' course for the training of Foresters and Forest Guards were held annually in the I, III, IV and V Circles and their working was satisfactory.

28. *Hill tribes.*—The Malayalees on the Javadi hills, the Khonds in Ganjām and Koyas and Reddis in the Gōdāvari divisions assisted the department as usual in the protection of the forests.

The Chenchus of Kurnool got out of hand in 1919 and 1920 and severe measures had to be taken to control their criminal propensities and to afford adequate protection to Government servants employed among them. Steps have been taken to reform the younger generation by means of education and the able-bodied by providing regular and suitable employment in the forests. It was decided that all expenditure in connexion with the Chenchus should be met from the forest budget.

H. TIREMAN,
Acting Chief Conservator of Forests.

APPENDICES.

APPENDIX A.—Comparative statement of number and origin of fires that occurred during the calendar year 1923.

APPEN

Appendix A.—Comparative statement of number and origin of

District.	A. Fires caused by accident or through carelessness in burning fire lines.		B. Fires entering forests by crossing exterior fire lines.		C. Fires beginning inside the							
					Owing to carelessness or accident.							
					By workmen engaged in the forests or by purchasers of forest produce and by hay cutters.		By villagers, travellers, etc., passing through the forests.		By railway engines.		By lightning or by fire balloons.	
	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
First Circle.												
Ganjam	9	1,459	15	3,932	..	..	19	1,703	3	68	..	..
Vizagapatam ..	..	..	..	..	1	100	11	926	..	..	..	..
Godavari, Upper.	2	60	13	19,783	..	..	4	26,457	..	..	..	..
Do. Lower..	1	(*b*)	5	5,772	..	..	15	3,219	..	..	..	..
Kistna ..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	12	1,519	33	29,487	1	100	49	32,305	3	68	..	..
Second Circle.												
Bellary	..	..	..	..	15	2,727	16	1,326	4	531	..	..
Anantapur ..	..	..	..	..	1	30	2	170	3	541	..	..
Guntur	..	..	..	..			5	2,713	..	..	..	..
Kurnool, East ..	1	80	12	8,635	1	3	..	..	..	..	..	..
Do. South ..	..	..	10	15,519	..	..	8	8,351	3	13,060	..	..
Do. West ..	2	25	1	600	2	207	..	..	..	..	..	..
Total ..	3	105	23	24,754	19	2,967	31	12,560	10	13,132	..	..
Third Circl												
Cuddapah, North.	..	..	15	12,255	.	..	4	568	..	..	..	..
Do. South.	..	..	..	..	..	..	..	..				..
Do. West.	..	..	..	..	1	51	4	414·50	..	..	..	..
Nellore	..	..	1	128	1	1	5	772	..	..	..	..
Chingleput ..	..	..	..	..	..	.	..	..	..	..	..	..
Chittoor	3	840	9	1,738	..	..	4	163	..	..	..	..
Vellore, North ..	..	..	2	177	..	..	..	..	..	..	..	..
Total ..	3	840	27	14,298	2	52	17	1,917·50	..	..	..	..
Fourth Circle.												
Vellore, South ..	..	..	1	50	1	40	6	160	1	4	..	..
Do. West ..	..	..	1	64	..	..	7	218	..	..	..	..
Salem, East ..	..	..	..	..	..	..	5	82	..	..	..	..
Do. North ..	1	40	5	1,345	..	..	5	381	..	..	1	1
Do. Central ..	..	..	2	47	1	*	10	269	..	..	..	..
Do. South ..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	1	40	9	1,506	2	40	33	1,110	1	4	1	1

Includes fires in unprotected areas as under—

	Acs.
Ganjam	6,067
Vizagapatam	50
Godavari, Upper	40

(*b*) Less than an acre.

* Less than an acre (0·02).

DICES.

fires that occurred during the calendar year 1923.

Reserves or fire-traced areas.											
By intentional firing.											
In order to obtain new grass.		In order to turn out game or to reduce cover.		Maliciously fired.		Total.		Causes unknown.		Total of A, B and C and causes unknown.	
Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.
(14).	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
1	50	7	4,649	8	1,374	38	7 844	4	376	66	(a) 13,611
..	..	..	..	..	..	12	1,026	..	..	12	(a) 1,026
..	..	12	52,570	1	5,798	17	84.825	6	43,362	38	1,48,030
..	..	..	..	..	..	15	3,219	20	3,246	41	12,237
..	..	..	..	..	..	..	..	1	50	1	50
1	50	19	57,219	9	7,172	82	96,914	31	47,034	158	1,74,954
..	..	..	..	..	..	35	4,584	29	7,444	64	12,028
2	147	..	..	..	..	8	888	12	2,096	20	2,984
..	..	..	..	..	..	5	2,713	..	..	5	2,713
3	245	4	3,981	3	162	11	4,391	32	15,398	56	28,504
..	..	1	1,492	1	10	13	21,913	12	14,267	35	51,699
..	..	..	..	2	35	4	242	3	75	10	942
5	392	5	5,473	6	207	76	34,781	88	39,280	190	98,870
24	7,945	..	..	..	..	28	8,513	10	1,600	53	22,368
..	..	..	..	1	5	1	5	..	..	1	5
3	194	..	..	9	1,025	17	1,684·50	11	1,650	28	3,334·50 or 3,335 in round figures.
..	..	..	..	1	0·90	7	773·90	1	0·10	9	902
..	..	..	..	..	..	..	..	..	..	..	..
..	..	6	1,438·50	..	..	10	1,601·50	37	6,217 85	59	10,397·35
14	2,537	..	..	9	495	23	3,032	8	203	33	3,412
41	10,676	6	1,438·50	20	1,525·90	86	15,609·90	67	9,670·95	183	40,418·85
12	522	..	..	9	390	29	1,116	5	142	35	1,308
1	60	..	..	9	357	17	635	14	327	32	1,026
1	2	..	..	3	5	10	90	19	104	29	194
2	40	1	245	..	..	8	666	16	4,465	30	6,516
12	289	3	126	2	71	28	755	2	77	32	879
..	..	..	..	..	..	..	..	12	517	12	517
28	913	4	371	23	823	92	3,262	68	5,632	170	10,440

Appendix A.—Comparative statement of number and origin of

District.	A. Fires caused by accident or through carelessness in burning fire lines.		B. Fires entering forests by crossing exterior fire lines.		C. Fires beginning inside the forests. Owing to carelessness or accident. By workmen engaged in the forests or by purchasers of forest produce and by hay cutters.		By villagers travellers, etc., passing through the forests.		By railway engines.		By lightning or by fire balloons	
	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.
(1)	(2)	(3)	(4)	(5)	(6	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Fifth Circle.												
Kollegal ..	..	..	..	..	1	52	1	15	..	..	..	..
Coimbatore, North.	..	..	5	215	..	..	38	2,159	3	152	..	..
Do. South.	..	..	1	640	2	253	..	..	..	..	..	..
Madura	1	18	2	73	2	106	..	..	..	..	..	..
Tinnevelly ..	..	..	9	321	5	340	2	479	..	..	2	86
Total ..	1	18	17	1,249	10	751	41	2,653	3	152	2	86
Sixth Circle.												
Mangalore, North.	1	1	..	..	..	..	14	88	..	..	..	..
Do. South.	..	..	11	109	..	..	5	152	..	..	..	..
Wynaad	..	..	..	..	..	..	..	..	..	..	..	..
Nilambur ..	3	45	..	..	..	..	..	..	..	..	..	..
Palghat	1	15	4	37	3	20	..	..	..	..	..	..
The Nilgiris ..	..	..	..	..	3	42	3	150	1	30	..	..
Total ..	5	61	15	146	6	62	22	390	1	30	..	..
Grand total for 1923.	25	2,583	124	71,440	40	3,972	193	50,936	18	13,386	3	87
Grand total for 1922.	29	5,499	255	122,790	80	30,245	325	96,571½	15	737	5	1,140

Fires that occurred during the calendar year 1923—*cont.*

Reserves or fire-traced areas.											
By intentional firing.						Total.		Causes unknown.		Totals of A, B and C and causes unknown.	
In order to obtain new grass.		In order to turn out game or to reduce cover.		Maliciously fired.							
Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
6	989	..	..	..	..	8	1,056	1	1	9	1,057
..	..	..	..	..	..	41	2,311	6	539	52	3,065
..	..	..	..	..	..	2	253	..	..	3	893
..	..	..	..	124	5,139	126	5,245	57	1,550	186	6,886
3	195	48	14,117	..	..	60	15,217	..	..	69	15,538
9	1,184	48	14,117	124	5,139	237	24,082	64	2,090	319	27,439
..	..	1	60	..	..	15	148	8	473	24	622
..	..	..	..	..	..	5	152	11	333	27	594
..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	* 1	..	4	45
1	50	..	..	2	55	6	125	2	2	13	179
..	..	..	..	..	..	7	222	5	34	12	256
1	50	1	60	2	55	33	647	27	842	80	1,696
85	13,265	83	78,679	184	14,922	606	175,246	345	104,549	1,100	353,818
464	2,44,680	47	15,047	220	39,456	1,156	427,876½	971	238,001½	2,411	894,167

* The area burnt was only 4 feet square.

APPENDIX B.—Comparative statement of impounded cattle during 1923-24.

Districts.	Number of cattle impounded.		Average for three years ending 1922-23.
	1922-23.	1923-24.	
First Circle.			
Ganjam	999	751	865
Vizagapatam	1,134	781	1,047
Godavari, Upper	368	845	475
Do. Lower	941	1,171	722
Kistna	5,394	3,906	4,263
Total	8,836	7,454	7,372
Second Circle.			
Bellary	9,209	9,081	7,390
Anantapur	13,626	8,071	10,790
Guntur	17,635	19,965	16,186
Kurnool, East	6,807	5,958	5,376
Do. South	9,459	9,058	8,698
Do. West	8,323	7,573	8,819
Total	65,059	59,706	57,259
Third Circle.			
Cuddapah, North	3,932	4,361	2,751
Do. South	1,919	1,598	1,529
Do West	8,535	6,761	7,184
Nellore	12,068	9,411	10,034
Chingleput	2,337	2,294	2,744
Chittoor	6,968	6,640	8,092
Vellore, North	8,638	6,428	7,551
Total	44,397	37,493	39,885
Fourth Circle.			
Vellore, South	5,692	5,260	6,900 *
Do. West	5,101	2,010	3,923 *
Salem, East	6,901	5,126	7,526 *
Do. North	1,659	1,727	1,076 *
Do. Central	3,570	3,664	3,237 *
Do. South	4,990	5,377	4,283 *
Total	27,913	23,164	26,945
Fifth Circle.			
Kollegal	3,998	2,383	3,658
Coimbatore, North	4,643	3,514	3,715
Do. South	431	398	488
Madura	7,799	8,957	5,495
Tinnevelly	2,898	2,225	2,551
Total	19,769	17,477	15,907
Sixth Circle.			
Mangalore, North	74	304	249
Do. South	1,019	580	629
Wynaad	180	145	94
Nilambur	Nil.	Nil.	Nil.
The Nilgiris	762	601	700
Palghat	1,674	972	1,018
Total	3,709	2,602	2,690
Grand total, Presidency	169,683	147,896	150,068

* Average for two and three-fourths years ending 31st March 1923.

ANNUAL FORM No. 65.

Forest Department, Madras Presidency.

Area of reserved forests and reserved lands during 1923–24.

ANNUAL FORM

Forest Department,

Area of reserved forests and reserved

Districts.	Area of reserved forests.					
	Area on 1st April 1923.		Added during the year.	Excluded during the year.	Area on 31st March 1924.	
	Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
First Circle.						
Ganjam	400,110	625	..	6	400,104	625
Vizagapatam ..	196,957	308	24	..	196,981	308
Godavari, Upper ..	531,346	830	(*a*) 181	(*f*) 93	531,434	830
Do. Lower ..	303,531	474	7,966	..	311,497	487
Kistna	169,196	265	..	(*f*) 215	168,981	264
Total ..	1,601,140	2,502	8,171	314	1,608,997	2,514
Second Circle.						
Bellary	359,753	562	..	(*b*) ·66	359,752	562
Anantapur	467,312	730	..	(*b*) 1,042	466,271	729
Guntur	501,988	784	..	(*b*) 1,855	500,132	781
Kurnool, East ..	620,767	970	..	..	620,767	970
Do. South ..	486,383	760	(*a*) 8,393	(*b*) 1,720	493,055	770
Do. West ..	546,154	853	..	(*c*) 9,171	536,983	839
Total ..	2,982,357	4,659	(*a*) 8,393	13,789	2,976,960	4,651
Third Circle.						
Cuddapah, North ..	381,492	596	38	73	381,457	596
Do. South ..	295,614	462	..	..	295,614	462
Do. West ..	477,609	746	..	14	477,595	746
Nellore	459,407	718	..	216	459,191	717
Chingleput	128,472	201	..	1,048	127,424	199
Chittoor	527,902	824	1	1,131	526,772	823
Vellore, North ..	289,757	453	26	1,816	287,967	450
Total ..	2,560,253	4,000	65	4,298	2,556,020	3,993
Fourth Circle.						
Vellore, South ..	307,016	480	(*a*) 26·00	(*d*) 40·00	307,002·00	480
Do. West ..	244,507	382	..	..	244,507·00	382
Salem, East	358,655	560	(*b*) 1,216	..	359,871·00	562
Do. North ..	333,793	(*g*) 522	..	..	333,793·00	522
Do. Central ..	262,327	410	(*c*) 42	..	262,369·00	410
Do. South ..	219,983	344	(*a*) 3,460	(*d*) 1,184	222,259·00	347
Total ..	1,726,281	2,698	4,744	1,224	1,729,801·00	2,703

First circle—

(*a*) Rectification of boundary. (*f*) Disforestation.

Second circle—

(*a*) Addition due to transfer of the area from Kurnool West to Kurnool South as per G.O. Mis. No. 227, dated 10th February 1923, with effect from 1st April 1923.

(*b*) Disafforested.

(*c*) Includes 8,393 acres transferred to Kurnool South, 588 acres disforested and 190 acres handed over to the Banganapalli State—vide G.O. No. 514, Development, dated 24th March 1924.

Fourth circle—

(*a*) Transferred to reserved forest.

(*b*) 1,209 acres added owing to the adoption of the areas calculated by the Survey of India for Thirthamalai, Elavambadi and Onnakarai reserves.

(*c*) Change is due to adopting the area calculations made by the Survey of India on their recent 2 inches = 1 mile survey for Masakal and Singarahalli—Parappadipath reserves.

(*d*) Area disafforested during the year. (*g*) As per correct calculation.

No. 65.

Madras Presidency.

lands during 1923–24.

Area of reserved lands.						Total area of reserved forests and reserved lands in square miles.
Area on 1st April 1923.		Added during the year.	Excluded during the year.	Area on 31st March 1924.		
Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.	
(8)	(9)	(10)	(11)	(12)	(13)	(14)
..	..	..	..	..	..	625
(c) 1,313				(c) 1,313	2	310
(d) 14	2	..	(b) 24	(d) 14		
(e) 24						
..	..	..	..	..	..	830
7,966	12	..	(b) 7,966	..	..	487
381	1	..	..	(d) 381	1	265
9,698	15	..	7,990	1,708	3	2,517
..	..	89	..	89	·14	562
..	..	..	..	..	..	729
..	..	..	..	..	..	781
..	..	..	..	..	..	970
..	..	..	..	..	..	770
..	..	..	..	..	..	839
..	..	89	..	89	·14	4,651
431	1	..	38	361	1	597
			(b) 32			
128	..	(a) 4	..	132	..	462
..	..	..	..	..	..	746
7,159	11	3	..	7,162	11	728
..	..	..	..	..	..	199
1	..	..	1	..	..	823
26	..	..	26	..	..	450
7,745	12	7	97	7,655	12	4,005
26·00	0·4	(e) 4·00	(a) 26·00	4·00	·01	480·01
..	..	..	..	..	..	382·00
7,492·00	12·00	..	(f) 10·00	7,482·00	12 00	574·00
..	..	..	..	..	..	522·00
7,884·00	12·00	..	..	7,884 00	12·00	422·00
20,874·00	32·61	..	(a) 3,460·00	17,414·00	27·21	374·21
36,276·00	56·65	4·00	3,496 00	32,784·00	51·22	2,754·22 or 2,754

First circle—

(b) Transferred to reserved forests.

(c) Leased forests.

(d) Notified under section 26 of the Forest Act.

(e) Notified under section 4.

Third circle—

(a) Due to the adoption of the areas as settled by the Forest Settlement Officer.

(b) Area excluded at Settlement.

Fourth circle—

(e) Area added during the year by notification under section 4.

(f) Area excluded under sett'ement in Pallipatti extension reserve, viz., 3·00 acres and 7 acres transferred to reserved forests.

Area of reserved forests and reserved

Districts.	Area of reserved forests.					
	Area on 1st April 1923.		Added during the year.	Excluded during the year.	Area on 31st March 1924.	
	Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fifth Circle.						
Kollegal	602,627	941	..	..	602,627	941
Coimbatore, North ..	563,972	881	(*a*) 432	(*b*) 2,731 (*c*) 68,056	493,617	771
Do. South ..	290,388	454	..	(*b*) 777	289,611	453
Madura	422,331	660	(*e*) 203	(*b*) 9	422,525	660
Tinnevelly ..	271,242	424	(*f*) 1,292	(*g*) 222	272,312	426
Total ..	2,150,560	3,360	1,927	71,795	20,80,692	3,251
Sixth Circle.						
Mangalore, North ..	229,976	360	..	(*a*) 74	229,902	359
Do. South ..	280,888	439	..	..	280,888	439
Wynaad	168,424	263	..	(*a*) 11	168,423	263
Nilambur	68,947	108	..	..	68,947	108
Palghat	168,839	264	..	(*a*) 712	168,127	263
The Nilgiris ..	263,656	412	(*b*) 109	1	263,654	412
Total ..	1,180,630	1,846	109	798	1,179,941	1,844
Grand total, Presidency.	12,201,221	19,065	23,409	92,218	12,132,411	18,956

Fifth circle—

(*a*) Area omitted by mistake in last year's return and now added.

(*b*) Disforested.

(*c*) Due to correct computation at the time of the revision of the District Reference Map in 1923.

(*e*) Added by rectification.

(*f*) Added during the year under section 16.

(*g*) Due to revision of boundary as per orders in G.O. Mis. No. 467, Political, dated 13th November 1923.

Sixth circle—

(*a*) Disforested.

(*b*) Addition to reserved forests, section 16.

lands during 1923-24—*cont.*

Area of reserved lands.						Total area of reserved forests and reserved lands in square miles.
Area on 1st April 1923.		Added during the year.	Excluded during the year.	Area on 31st March 1924.		
Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.	
(8)	(9)	(10)	(11)	(12)	(13)	(14)
..	..	..	..	..	..	941
..	..	(*d*) 7	..	7	*	771
..	..	..	..	..	..	453
..	..	(*d*) 228	..	228	*	660
1,292	2	..	(*h*) 1,292	..	..	426
1,292	2	235	1,292	235	..	3,251
..	..	..	..	..	..	359
..	*	..	..	..	..	439
22		..	..	(*d*) 22	..	263
12,252	19	..	..	(*e*) 12,252	19	127
..		..	..	..	..	263
52,580	82	..	..	52,471	82	499
2,878	*5	..	(*c*) 109	2,878	* 5	
67,732	106	..	109	67,623	106	1,950
122,743	192	335	12,984	110,094	172	19,128

Fifth circle—
(*d*) Notified under section 4.
(*h*) Transferred to reserved forest.
* Less than one square mile.

Sixth circle—
(*c*) Transferred to reserved forests, section 16.
(*d*) Botanical gardens at Manantoddy.
(*e*) Leased forests.
* Toda patta lands.

Appendix to Form No. 65.

Details of classification of forests in the several districts for 1923–24.

District.	Area of reserved forests in square miles.	Details of classification in square miles.						Unclassified.
		I	II	III	IV	V	VI	
First Circle.								
Ganjam	625	388	230	(a) ..	7	..	..	..
Vizagapatam ..	308	211	72	(a) ..	7	18	..	..
Godavari, Upper ..	830	217	613	..	..	..	..	..
Do. Lower ..	487	97	256	..	134	..	..	..
Kistna	264	22	83	..	26	133	..	..
Total ..	2,514	935	1,254	..	174	151	..	..
Second Circle.								
Bellary	562	36	257	13	121	132	..	3
Anantapur	729	..	304	..	376	49	..	..
Guntur	781	..	..	5	683	93	..	..
Kurnool, East ..	970	280	333	..	231	126	..	..
Do. South ..	770	281	300	..	187	2	..	..
Do. West ..	839	487	288	..	58	6	..	..
Total ..	4,651	1,084	1,482	18	1,656	408	..	3
Third Circle.								
Cuddapah, North ..	596	568	..	3	25	..	..	..
Do. South ..	462	431	2	..	29	..	..	..
Do. West ..	746	277	219	..	1	212	37	..
Nellore	717	172	164	4	326	51	..	..
Chingleput	199	..	40	..	143	16	..	..
Chittoor	823	266	329	1	17	209	1	..
Vellore, North ..	450	67	319	4	7	52	1	..
Total ..	3,993	1,781	1,073	12	548	540	39	..
Fourth Circle.								
Vellore, South ..	480	31	(a)392	..	..	(a) 57	..	..
Do. West ..	382	22	(b) 343	..	3	(c) 6	8	..
Salem, East	562	(d) 317	(h) 134	..	..	61	(i) 50	..
Do. North ..	522	..	420	..	102	..	..	..
Do. Central ..	410	86	213	1	89	21	..	..
Do. South ..	347	(e) 215	55	..	..	(f) 73	(g) 4	..
Total ..	2,703	671	1,557	1	194	218	62	..

Note for First Circle.

(a) Less than half a square mile.
(b) 100 square miles, consisting Coringa and its extension and Kandikuppa, have been shown under class II although they are classed under classes II and IV.

Note for Fourth Circle.

(a) 4 square miles were transferred from class V to class II, viz., parts of Alialamangalam and Siruvadi reserves.
(b) Melchangam reserve an area of 1,542·00 acres was transferred from class V to class II.
(c) 900 acres (Thogarapalli reserve) was transferred from class II to class V.
(d) An area of about 1½ square miles were added to Thirthamalai reserve by adopting the area given in the 2-inches scale maps published by the survey of India.
(e) 5 square miles (Vappadi reserve) was added to class I during the year.
(f) About 1½ square miles in Irur reserve was disforested.
(g) About half a square mile was disforested.
(h) 180·00 acres were added to Elavambadi reserve by adopting the area given in 2-inches scale survey of India map.
(i) This includes provisional class IV area of 40 square miles.

Details of classification of forests in the several districts for 1923–24—*cont.*

District.	Area of reserved forests in square miles	Details of classification in square miles.						Unclassified.
		I	II	III	IV	V	VI	
Fifth Circle.								
Kollegal	941	754	140	..	43	4	..	..
Coimbatore, North ..	771	565	171	..	45	..	..	..
Do. South ..	453	375	62	..	11	5	..	..
Madura	660	347	398	..	..	15	..	..
Tinnevelly	426	198	196	..	11	9	9	..
Total ..	3,251	2,129	967	..	113	83	9	..
Sixth Circle.								
Mangalore, North ..	359	286	35	1	37	..	..	..
Do. South ..	439	254	67	..	118	..	.	..
Wynaad	263	226	37	..	..	..	..	..
Nilambur	108	100	8	..	..	..	..	..
Palghat	263	142	82	..	23	7	..	(*a*) 9
The Nilgiris	412	348	57	3	2	..	..	(*b*) 2
Total ..	1,844	1,356	286	4	180	7	..	11
Grand total, Presidency.	18,956	7,956	6,619	35	2,865	1,357	110	14

Note for Sixth Circle. (*a*) Five reserves with an area of 9 square miles have not yet been classified.
(*b*) Area of Rangaswami Peak reserve forest not yet classified.

ANNUAL FORM No. 66.

Forest Department, Madras Presidency.

Progress made in forest settlements during the year 1923–24.

Forest district.	Name of forest.	Area in square miles.			Cost during the year.		Entire cost per square mile of area finally settled.	Government notification of settlement.	
		Finally settled during the year.	In hand at the commencement of the year.	Taken in hand during the year.	In forest accounts.	In other accounts.		Number.	Date.
	First Circle.				Rs.				
Vizagapatam ..	Chinnaghora extension block VI	0·038	..	..	..	..	..	113	26th April 1923.
Godavari, Lower.	Birampalli	2·804	..	..	..	..	..	14	10th Jan. 1924.
	Vemulakonda	5·244	..	..	..	..	..	15	Do.
	Palam	2·083	..	..	..	..	..	16	Do.
	Nurupudi	2·315	..	..	..	..	..	17	Do.
	Total ..	12·484	..	..	..	..	..	..	
	Second Circle—Nil.								
	Third Circle.								
Cuddapah, North.	Kothapalle—Dasarapalle extension	0·050	0·560	..	..	..	..	228	18th Aug. 1923.
Cuddapah, South.	Seshachalam reserve	..	0·002	..	3,719 (a)+ 8	..	..	..	..
	Do. extension A	..	0·003	..					
	Rollamadugu-Seshachalam	..	0·020	..					
	Buduguntlapalle reserve	..	0·002	..					
	Do. extension A	..	0·005	..					
	Salivendla reserve	..	0·100	..					
	Chitvel extensions A and B	..	0·060	..					
Nellore ..	Compartment No. 29 of Rapur Veligondas ..	..	11·190	..	..	..	..	..	..
	Sriharikota reserve	..	..	0·005	136	..	..	..	..
Chittoor ..	Addition to Musalimadugu extension	0·001	..	..	205	..	..	278	13th Oct. 1923.
Vellore, North.	Sanankuppam	0·020	..	..	..	..	..	262	20th Sep. 1923.
	Ambur	0·010	..	..	..	..	..		
	Kaniyambadi	0·006	..	..	..	..	..	308	20th Nov. 1923.
	Total ..	0·087	11·942	0·005	4,068	..	..	..	
	Fourth Circle.								
Vellore, South.	Mulakad reserve additions	0·0405	0·0405	..	..	..	..	183	11th June 1923.
	Sorakolattur reserve addition	..	..	0·006	..	..	..	38	3rd Feb. 1923.

Vellore West..	Nil	Nil.	Nil.	Nil.	..	..	..	..	..
Salem, East ..	Arana and Tirthagiri blocks	..	5·9200	..	..	..	..	..	..
	Pallipatti extension	..	5·7700	..	..	..	..	..	..
	Mannur reserve addition	0·004	0·0040	..	..	..	..	303	17th Nov. 1923.
	Swamimalai reserve 2nd bit addition	0·007	0·0070	..	..	..	..	241	6th Sep. 1923.
Salem, Central.	Jarugumalai reserve	..	11·9400	..	..	..	..	..	..
	Kanjeri extension	..	0·3800	..	..	..	..	..	..
Salem, North..	Nil	Nil.	Nil	Nil.	..	..	..	..	..
Salem, South..	Paithur	..	20·6300	..	..	..	..	136	24th June 1921.
	Veppadi	5·380	5·3800	..	..	..	..	312	29th Nov. 1923.
	Atturmanmalai	..	6·4900	..	..	..	..	76	17th Feb. 1920.
	Seegamkaradu	0 020	0·0200	..	..	..	..	184	27th June 1923.
	Pakkirikaradu	0·003	0·0030	..	..	..	..	105	12th Apr. 1923.
	Karavallikombai additions	..	0·0300						
	Jambuthu do.	..	0·0030	..	..	..	..	352	9th Dec. 1922.
	Shelur reserve do.	..	0·0600						
	Total ..	5·4545	56·6775	0·006	..	..	..	..	
	Fifth Circle.								
Tinnevelly ..	Karumandiamman Snoia estate	0·14	0·14 (*b*)	..	..	..	..	110	21st Apr. 1923.
	Mulakadu block	1·48	1·48	..	..	..	..	297	3rd Nov. 1923.
	Hare Island for Tuticorin harbour	0·22	0·22	..	..	..	..		
	Punnayadi Island for Tuticorin harbour ..	0·16	0·16	..	..	..	..		
Coimbatore, North.	Addition to Jaccanari reserve	..	..	0·001	..	..	..	135	7th May 1923.
Madura ..	Do. to Tiger Shola reserve	..	..	0·343	..	..	..	22	16th Jan. 1924.
	Do. to Kodavanar reserve	..	..	0·013	..	..	..	156	30th May 1923.
	Total ..	2·00	2·00	0·357	..	..	..	..	
	Sixth Circle.								
The Nilgiris ..	Mudumalai reserved forest	..	74·69	..	..	..	..	..	..
	Addition to Kalhatti reserved forest	0·17	..	..	..	..	..	76	9th March 1923.
	Do. to Wenlock downs reserved forest ..	(*c*) ..		..	..	..	..	263	20th Sep. 1923.
	Do. to Nudugula reserved forest ..	..	0·06	..	..	..	..	..	..
	Do. to Nadukadahulla reserved forest ..	..	0·27	..	..	..	..	..	..
	Do. to Attakadu Shola reserved forest ..	..	0·05	..	..	..	..	..	..
	Do. to Doddakavu reserved forest ..	..	0 08	..	..	..	..	..	..
	Do. to III to Kodanad valley shola reserved forest.	..	0·13	..	..	..	..	..	..
	Do. to Madanad	..	0·16	..	..	..	..	(*d*)158	19th May 1924.
	Do. to Segur reserved forest	..	4·69	..	..	..	..		
	Total ..	0·17	80·13	..	..	..	..	..	
	Grand total, Presidency ..	20·195	150·749	0·368	4,068	..	..	..	..

(*a*) For acquisition of a site. (*b*) Correct figure. (*c*) Area 50 cents.
(*d*) The settlement is completed, but the notification is to be given effect to only from 10th July 1924.

ANNUAL FORM No. 67.

Forest Department, Madras Presidency.

Record of demarcation and maintenance of boundaries during 1923–24.

District.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries still to be demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
								On new work.	On repairs.
First Circle.	MILES.	MILES.	MILES.	MILES.	MILES	MILES.	MILES.	RS.	RS.
Ganjam	..	*(a) 1,357	..	1,375	..	80	1,455	..	9
Vizagapatam ..	..	(a) 564	..	564	..	19	583	..	(e) 23
Godavari, Upper ..	..	(b) 595	..	595	15	151	761	..	(c) 4
Do. Lower ..	23	2 (a) 736	..	761	20	71	852	480	25 (c) 222
Kistna	..	7 (a) 422 (d) —1	118	546	..	40	586	..	44
Total ..	23	6 (a) 3,099 (b) 595	118	3,841	35	361	4,237	480	78 (c) 226 (e) 23
Second Circle.									
Bellary	..	(a) 946 (b) 514	..	1,460	..	..	1,460	(d) 145	..
Anantapur	..	(c) 20 (a) 1,685	..	1,705	..	34	1,739	..	138
Guntur	..	(a) 41	1,172	1,213	..	..	1,213	..	184
Kurnool, East ..	..	(a) 567 (b) 15	30	612	..	48	660	..	..
Do. South ..	(f) 4	(a) 594	55	653	..	5	658	(e) 166	..
Do. West	(f) 4	(a) 809 (c) 31	20	864	..	100	964	(e) 33 (k) 10	507
Total ..	8	(a) 4,642 (b) 529 (c) 51	1,277	6,507	..	187	6,694	354	829

* Less than a mile.

Note for First Circle.

(a) Cleared by subordinates free of cost.
(b) Cleared by hill tribes for fire-protection, the cost being debited to B VIII (f).
(c) Cost of works other than boundaries of forests finally notified.
(d) Deduction owing to disforestation.
(e) Cost of surveying the boundaries with a view to rectification

Note for Second Circle.

(a) Boundaries repaired free of cost by subordinates.
(b) Do. do. by panchayatdars.
(c) Do. do. by the department.
(d) Cost of demarcating panchayat division boundaries.
(e) Do. disafforested areas.
(f) Length of disafforested boundaries newly demarcated.
(k) This amount was wrongly credited to B VIII-a instead of to B VII-a shown here, to agree with Accountant-General's figures.

Record of demarcation and maintenance of boundaries during 1923-24—*cont.*

District.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries still to be demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
								On new work.	On repairs.
Third Circle.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	RS.	RS.
Cuddapah, North ..	..	(a) 168·50	391·50	560	..	13	573	24	75
Do. South ..	..	(a) 215	111	326	..	40	366	..	..
Do. West ..	..	(a) 457	928	1,385	..	22	1,407	..	(d) 304
Nellore	..	(a) 1,907 2	47	(b) 1,956	..	84	2,040	..	167 (f) + 1
Chingleput ..	..	(a) 675 9	170	(c) 854	..	..	854	..	625
Chittoor	..	(a) 611 502	333	1,446	..	60	1,506	21	302
Vellore, North ..	1	(a) 1,028	..	(e) 1,029	..	11	1,040	..	5 (g)+ 115
Total ..	1	5,574·50	1,980·50	7,556	..	230	7,786	45	1,290
Fourth Circle.									
Vellore, South ..	..	915	..	915	..	15	930	..	..
Do. West ..	..	596	33	629	..	13	642	..	50
Salem, East ..	..	1,168	..	1,168	..	4	1,172	..	685
Do. North ..	..	462	22	484	..	116	600	..	..
Do. Central ..	..	646	38	684	..	15	699	(a) 15	422
Do. South ..	38	(b) 987	..	1,025	25	..	1,050	499	131
Total ..	38	4,774	93	4,905	25	163	5,093	514	(c) 1,288

Note for Third Circle.

(a) Cleared by subordinates free of cost.
(b) Difference due to exclusion of areas disafforested.
(c) Revised figure.
(d) Charged to B II.
(e) Last year's figure—1,043 miles.
Deduct. 15 miles. (—13 due to disafforestation. —2 due to acquisition in certain reserves.)

Balance	1,028
Add as in Col. 2.	1
Total ..	1,029

(f) Cost of demarcation stones for Podalakur reserved forest.
(g) Added to agree with the Accountant-General's figures.

Note for Fourth Circle.

(a) Represents the cost of construction of 29 cairns owing to exclusion of a portion of Kurumbapatti reserve.
(b) Difference of 10 miles is due to exclusion of areas disafforested.
Excludes Rs. 43 spent in Tanjore.

Record of demarcation and maintenance of boundaries during 1923-24—*cont.*

District.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries still to be demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
								On new work.	On repairs.
Fifth Circle.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	RS.	RS.
Kollegal	11	(*a*) 299	..	310	133	152	595	410	..
Coimbatore, North	..	(*a*) 585	..	585	170	106	861	(*c*) 20	..
Do. South.	..	6 (*a*) 23	199 (*b*) —8	220	..	72	292	..	83
Madura	11	(*a*) 1,004	322	1,337	229	171	1,737	320	..
Tinnevelly ..	..	(*a*) 252	192 (*b*) —15	429	..	34	463	..	(*d*) 41
Total ..	22	2,169	690	2,881	532	535	3,948	750	124
Sixth Circle.									
Mangalore, North.	..	..	(*b*) 1,226	(*a*) 1,226	..	103	1,329	..	28
Do. South.	..	..	(*b*) 1,135	1,135	..	101	1,236	..	2
Wynaad	2	52	1,103 (*b*) 23	1,180	28	36	1,244	78	369
Nilambur	..	(*c*) 95	..	95	20	55	170	..	..
The Nilgiris ..	..	6	1,208 (*b*) 297	1,511	..	299	1,810	..	* 343
Palghat	..	6	206 (*b*), (*c*) 83	(*a*) 295	16	39	350	..	134
Total ..	2	159	5,281	5,442	64	633	6,139	78	876
Grand total, Presidency.	94	21,598½	9,439½	31,132	656	2,109	33,897	2,221	4,734

Note for Fifth Circle.
(*a*) Cleared by subordinates free of cost.
(*b*) Due to disforestation.
(*c*) Cost of cairns prepared for demarcation of Arigam enclosure.
(*d*) Added to agree with the Accountant-General's figures.

Note for Sixth Circle.
* Clearing District boundary line.
(*a*) Decrease due to disafforestation of reserves.
(*b*) Usual line-clearing by subordinates.
(*c*) Cost of line-clearing charged to fire-tracing operations.

ANNUAL FORM No. 69.

Forest Department, Madras Presidency.

Progress made in working plans during 1923–24.

District.	Areas for which working plans have been completed and approved by the Chief Conservator.		Areas for which working plans are being compiled or have been compiled but not sanctioned.		Areas for which working plans have still to be taken in hand.	Areas for which working plans are not at present required.	Total forest area as per Form No. 65.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.			
FIRST CIRCLE.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Reserved forests.							
Ganjām	625	..	..	..	..	..	625
Vizagapatam ..	186	62	..	42	..	18	308
Gōdāvari, Upper ..	..	..	..	..	830	..	830
Do. Lower ..	313	..	..	..	107	67	487
Kistna	240	..	..	..	..	24	264
Total ..	1,364	62	..	42	937	109	2,514
Reserved lands.							
Vizagapatam ..	..	..	..	..	..	2	2
Kistna	..	..	..	..	..	1	1
Total ..	..	..	..	..	..	3	3
SECOND CIRCLE.							
Reserved forests							
Bellary	..	..	..	..	(*a*) 482	80	562
Anantapur ..	315	(*b*) 117	..	..	297	..	729
Guntūr	..	1	(*d*) 34	(*e*) 602	..	144	781
Kurnool, East ..	..	..	176	..	(*f*) 761	33	970
Do. South ..	..	..	(*g*) 9	196	565	..	770
Do. West ..	(*k*) 298	..	(*h*) 1	167	..	373	839
Total ..	613	118	220	965	2,105	630	4,651
Reserved lands.							
Bellary	..	..	..	..	14	..	..

Note for Second Circle.

(*a*) Includes lapsed working plans for 89 square miles of Harpanahalli and Kudligi Ranges and for 50 square miles of Adoni Range cancelled.

(*b*) Gooty Range revised working plan sanctioned in C.C.P. Mis. No. 507, dated 28th September 1923.

(*d*) Repalle Mangalore working scheme sanctioned by Conservator under revision.

(*e*) Working plans for Sattenapalle, Palnad and Vinukonda Ranges under compilation during the year.

(*f*) Includes lapsed working plan for 123 square miles of Gudem Range.

(*g*) Gazulapalli working scheme sanctioned by Conservator transferred from Kurnool West to Kurnool South division.

(*h*) Veldurti working scheme sanctioned by Conservator.

(*k*) Includes 31 square miles of Gundlabrahmeswaram Range working plan held in abeyance.

Progress made in working plans during 1923-24—*cont.*

District.	Areas for which working plans have been completed and approved by the Chief Conservator.		Areas for which working plans are being compiled or have been compiled but not sanctioned.		Areas for which working plans have still to be taken in hand.	Areas for which working plans are not at present required.	Total forest area as per Form No. 65.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.			
THIRD CIRCLE.							
Reserved forests.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Cuddapah, North ..	31	..	48	2	500	15	596
Do. South ..	96	..	..	..	..	366	462
Do. West ..	53 — 3 (*c*)	..	..	24	..	672	746
Nellore	87 (*d*)	..	107	..	25 (*a*)	509	728
Chingleput ..	182 — 2 (*b*) + 19 (*a*)	..	..	..	..	..	199
Chittoor	33	85	..	..	11 (*a*)	695	824
Vellore, North ..	404 + 17 (*a*) — 3 (*b*)	..	..	..	..	32	450
Total ..	914	85	155	26	536	2,289	4,005
Reserved lands—Nil.							

District.	Regular working plans.	Schemes.	Revised or new working plans.	Revised or new schemes.	Existing working plans.	Existing schemes.	New working plans or scheme.	Existing working plans.	Existing schemes.	New working plans or schemes.			
FOURTH CIRCLE.													
Reserved forests.													
Vellore, South .	(*b*) 413	..	..	..	127	..	..	353	..	..	..	..	480
Do. West ..	381	..	..	..	*369	..	..	..	..	..	..	1	382
Salem, East ..	(*c*) 336	* 12	..	..	..	..	74	* 15	..	..	..	152	562
Do. North ..	96	..	..	..	..	..	217	..	..	..	..	209	522
Do. Central ..	(*d*) 193	..	..	(*d*) 67 * 45	..	* 17 (*a*) 3	36	..	..	..	(*d*) 114	..	410
Do. South ..	153	75	..	3	..	28	..	..	..	3	45	40	347
Total ..	1,159	75	..	70	127	28	327	353	..	3	159	402	2,703
Grand total ..	1,234		70		482			356					

Note for Third Circle.

(*a*) Temporary working schemes.
(*b*) Disafforestation.
(*c*) Area for which working plan has been cancelled by the Chief Conservator of Forests.
(*d*) Revised consequent on the working plans having lapsed or requiring revision.

Note for Fourth Circle.

* The figures are excluded in vertical totals as they are included in the figures column 2, sub-column 1.

(*a*) This is exclnded in vertical total as it is included in the figure in column 3.
(*b*) 1. This is excluded in vertical total as it is included in the figures in columns 4 and 5.
2. Correct figure furnished by the District Forest Officer.
(*c*) Correct area as per survey of India sheet.
(*d*) A part of the area under regular working plans was brought under a new scheme (67 square miles in column 3) and for 2 square miles working plan is still to be taken in hand column 6.

Progress made in working plans during 1923–24—*cont.*

District.	Areas for which working plans have been completed and approved by the Chief Conservator.		Areas for which working plans are being compiled or have been compiled but not sanctioned.		Areas for which working plans have still to be taken in hand.	Areas for which working plans are not at present required.	Total forest area as per Form No. 65.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.			
Fifth Circle.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Reserved forests.							
Kollegal ..	(*a*) 3 (*b*) *141	..	29	..	81	*687	941
Coimbatore, North.	* (*a*) 78 (*b*) 266 (*c*) 222	..	..	..	28 (*d*)—4	181	771
Do. South.	(*a*) 65	..	..	..	25	337 (*d*) —1	426
Madura	(*a*) 351	..	15	..	279	15	660
Tinnevelly ..	(*e*)	(*b*) 287	..	..	..	139	426
Total ..	1,126	287	44	...	409	1,358	3,224
Leased forests.							
Coimbatore, South	(*a*) 20	..	..	..	..	7	27
Grand total ..	1,146	287	44	..	409	1,365	3,251
Sixth Circle.							
Reserved forests.							
Mangalore, North.	..	(*d*) 25	..	..	(*a*) 330 4	..	359
Do. South.	3	..	..	..	(*a*) 436	..	439
Wynaad	..	..	..	..	(*a*) 178 22	63	263
Nilambur	108	..	..	..	..	..	108
The Nilgiris ..	63	..	(*b*) 2	..	..	347	412
Palghat	(*c*) 27 (*d*) 45	..	..	..	97	94	263
Total ..	246	25	2	..	1,067	504	1,844
Reserved lands.							
The Nilgiris ..	75	..	..	..	6	6	(*e*) 87
Leased forests.							
Nilambur ..	19	..	..	..	..	..	19
Total ..	340	25	2	..	1,073	510	1,950
Grand total, Presidency.	5,611	617	903	1,389	5,219	5,308	19,077

Note for Fifth Circle.

* Revised figures.
(*a*) Areas of regular working plans which are in force.
(*b*) Areas of temporary working schemes sanctioned by the Conservator.
(*c*) Areas of lapsed working plans worked however for extraction of dead an spiked sandal trees on a temporary scheme.
(*d*) Disforested.
(*e*) Excludes working plans that have become obsolete.

Note for Sixth Circle.

(*a*) Sanctioned working plans expired and to be revised.
(*b*) Working scheme approved by the Conservator.
(*c*) Includes Walayar working plan, 7 square miles under revision.
(*d*) Working scheme.
(*e*) Includes Toda patta land, 5 square miles.

ANNUAL FORM No. 70.

Forest Department, Madras Presidency.

Communications and Buildings during 1923-24.

District.	Roads (including bridge-paths and culverts).				Buildings.		Other works.	
	New works.		Repairs.		Cost of new works.	Cost of repairs.	Cost of new works.	Cost of repairs.
	Length.	Cost.	Length.	Cost.				
First Circle.	M. F. CH.	RS.	M. F. CH.	RS.	RS.	RS.	RS.	RS.
Ganjam	3 0 0 a bridge	444 459	43 4 0	1,420 (c)--5	4,113	4,092 (a)1,278	..	16
Vizagapatam ..	5 0 0	1,440	0 3 0	27	395	386 (a) 210	53	..
Godavari, Upper ..	2 7 8	607	4 7 8	639	1,351	1,739 (c) —1 (a) 435	299	5
Do. Lower ..	..	(b) 163	30 6 0	1,484	1,318	2,290 (c) —8 (a) 479	..	29
Kistna	..	..	20 4 0	163	..	38	..	250 (c)-50
Total ..	10 7 8	3,113	100 0 8	3,728	7,177	10,938	352	250
Second Circle.								
Bellary	..	..	..	..	659	310 (a) 723	..	53
Anantapur ..	..	..	..	..	..	1,268 (a) 1,446	..	4
Guntur	7 0 0	350	5 3 0	715	444	2,083	315	25
Kurnool, East ..	17 6 0	2,555	40 4 0	4,371 (d) 950	1,129	1,709 (a) 604	575	270
Do. South ..	..	..	70 0 0	2,973 (c) 2,200	324	2,532 (a) 498	..	227
Do. West ..	6 0 0	345	14 5 0	3,019 (b) 650	1,038	704 (a) 900	262	16
Total ..	30 6 0	3,250	130 4 0	14,878	3,594	12,777	1,152	594
Third Circle.								
Cuddapah, North..	12 6 0	129	17 4 0	564	1,190	2,163 (a) 601	143	326
Do. South..	0 2 5	125	27 7 5	1,426	2,815	1,374 (a) 356	..	512
Do. West	0 0 7	284	11 6 0	791	1,017	2,137 (a) 1,271	934	166
Nellore ..	..	..	6 1 4	32	2,300	1,140 (a) 1,366	324	20
Chingleput ..	0 3 0	70	12 1 5	1,013	3,124	1,682	..	44
Chittoor ..	0 1 0	50	40 7 0	3,635	982	941 (a) 950	968	25
Vellore, North ..	..	..	19 3 0	2,034	632	1 097 (a) 480	..	40
Total ..	13 5 2	658	135 6 4	9,495	12,060	15,558	2,369	1,133

Note for First Circle.
- (a) Cost of establishment.
- (b) Compensation for land taken for road constructed in the previous year.
- (c) Deducted to agree with the Accountant-General's figure.

Note for Second Circle.
- (a) Represents cost of establishment of the buildings.
- (b) Represents contribution to Local Fund Department for maintenance of Mantralakanama Road.
- (c) Represents annual contribution to the District Board, Kurnool, for the maintenance of Racherla-Garladinne famine road in Owk Range and Nandikanama Ghat Road in Chelama Range.
- (d) Represents contribution to the District Board for upkeep of Mantralakanama Ghat Road.

Note for Third Circle.—(a) Cost of establishment.

Communications and Buildings during 1923-24—*cont.*

District.	Roads (including bridle-paths and culverts).				Buildings.		Other works.	
	New works.		Repairs.		Cost of new works.	Cost of repairs.	Cost of new works.	Cost of repairs.
	Length.	Cost.	Length.	Cost.				
	M. F. CH.	RS.	M. F. CH.	RS.	RS.	RS.	RS.	RS.
Fourth Circle.								
Direction	..	..	..	..	..	22	..	..
Forest Engineer ..	10 7 0	2,821	..	..	..	..	..	..
		(*a*)-213						
Vellore, South ..	2 5 0	363	33 7 0	2,503	3,573	2,467	912	253
Do. West ..	8 4 0	102	33 7 0	2,915	2,051	1,601	105	85
				(*a*)+ 4				
Salem, East ..	..	..	15 2 0	177	..	2,005	..	80
Do. North ..	0 6 0	162	23 6 0	492	315	1,006	..	270
Do. Central ..	1 3 4	2	29 2 0	1,502	..	1,598	..	28
Do. South ..	1 6 0	660	59 2 0	1,481	768	2,407	..	4
Tanjore	..	..	..	..	..	169	..	..
Total ...	25 7 4	3,897	195 2 0	9,074	7,707	11,275	1,017	720
Fifth Circle.								
Kollegal	2 0 0	24	69 4 0	869	250	459	50	23
				(*a*)+ 43		(*a*)— 42		
						(*b*) 197		
Coimbatore, North .	..	..	98 0 0	3,301	..	2,256	..	71
				(*a*) —36		(*b*) 348		
Do. South .	0 2 0	740	48 3 0	12,823	1,038	2,500	495	106
				(*b*) 575		(*b*) 394		
Madura	..	(*c*) 852	240 6 0	9,203	64	2,072	153	210
				(*a*)+ 89		(*b*) 762		
Tinnevelly	0 4 0	(*d*) 939	9 0 0	3,340	1,268	2,790	..	2
						(*b*) 496		
Forest Engineer ..	6 3 0	(*e*)68,236	..	..	..	..	85	..
		(*f*) 440						
		(*a*) —5						
Direction ..	(*g*)14 4 0	3,455	..	..	5,148	617	..	..
Total ..	23 5 0	74,681	465 5 0	30,207	7,768	12,849	783	412

Note for Fourth Circle.

Note.—The amounts shown in column 7 include cost of establishments.

(*a*) Added or subtracted to tally with the Accountant-General's audited figures.

Note for Fifth Circle.

(*a*) To tally with Accountant-General's figures.

(*b*) Cost of establishment.

(*c*) Rupees 606 incurred on the construction of a culvert on the Vannathiparai-Guruvanuthu Road and Rs. 246 paid as compensation for the acquisition of lands for the construction of Pajadani-Usilampatty Road.

(*d*) Includes cost of construction of one culvert and eight under-ground drains.

(*e*) Expenditure on the construction of Mount Stuart Ghat Road.

(*f*) Expenditure on the investigation of a trace to the felling coupes *via* Ulandi Road.

(*g*) Alignment of inspection paths in Kodamady and Kannikatty ranges in the Tinnevelly district.

Communications and Buildings during 1923-24—*cont.*

District.	Roads (including bridle-paths and culverts).				Buildings.		Other works.	
	New works.		Repairs.		Cost of new works.	Cost of repairs.	Cost of new works.	Cost of repairs.
	Length.	Cost.	Length.	Cost.				
Sixth Circle.	M. F. CH.	Rs.	M. F. CH.	Rs.	Rs.	Rs.	Rs.	Rs.
Mangalore, North	8 3 0	325	21 3 0	1,219	9,151	386 (a) 120	973	10
Do. South	11 1 0	482	10 3 0	276	3,828	1,264	962	14
Wynaad	(b) 5 0 0	6,011	167 5 0	3,198	1,429	900 (a) 230	139	89
Nilambur	..	..	19 0 0	2,182	(f) 10,308	1,767 (a) 72	..	10
The Nilgiris ..	0 1 0	150	88 5 0	6,353	(e) 4,593	(d) 2,479 (a) 217	..	20
Palghat	(c) 35 3 0	4,472	70 2 0	2,001	4,274	1,288 (a) 169	..	49
Forest Research Officer.	..	..	..	..	..	120 (a) 11	..	..
Total ..	60 0 0	11,444	377 2 0	15,229	33,583	9,023	2,074	192
Exploitation Division.	(g) 4 5 7	11,040	14 0 0	11·619	..	644	..	..
Grand total, Presidency	175 5 1	1,08,083	1,418 4 2	94,230	71,889	73,064	7,747	3,301

Notes for Sixth Circle.

(a) Cost of establishment.
(b) Cost of metal collected, spreading and consolidating on the existing road from Sultan's Battery to Chedleth to a distance of nearly five miles.
(c) Excludes cost of constructing the Madras Forest College huts at Bandyshola, Rs. 5,318.
(d) Excludes cost of repairing the Madras Forest College huts at Aramby, Rs. 143.
(e) Refers to inspection paths: of this length, ten miles two furlongs relate to alignment only.
(f) Includes Rs. 7,231 on reconstruction necessitated by the Mappilla disturbance.
(g) Drag paths and pole road.

ANNUAL FORM No. 71.

Forest Department, Madras Presidency.

Register of breaches of Forest Rules during 1923–24.

Annual Form No. 71.

Forest Department, Madras Presidency.

Register of breaches of Forest Rules during 1923–24.

District.	Cases pending from 1922-23.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorized felling.	Unauthorized grazing.	Other offences.	Total new cases of the year		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
First Circle.														
Ganjām .. A ..	29	2	40	2	3	47	76	34	63	16	61	50	124	26
Ganjām .. B ..	91	2	415	19	1	437	528	374	1,633	29	135	403	1,768	125
Ganjām .. C ..	..	62	33	..	2	97	..	..	..	..	..	..	..	..
Total ..	120	66	488	21	6	581	604	408	1,696	45	196	453	1,892	151
Vizagapatam. A ..	9	..	67	5	77	149	158	140	355	6	17	146	372	12
Vizagapatam. B ..	34	1	269	32	15	317	351	315	903	14	65	329	968	22
Vizagapatam. C ..	..	11		..	..	11	..	..	..	..	..	..	..	..
Total ..	43	12	336	37	92	477	509	455	1,258	20	82	475	1,340	34
Gōdāvari, Upper. A ..	8	..	11	2	3	16	24	19	49	1	7	20	56	4
Gōdāvari, Upper. B ..	11	2	93	14	4	113	124	93	233	15	38	108	271	16
Gōdāvari, Upper. C ..	..	23	4	..	..	27	..	..	..	..	..	..	..	..
Total ..	19	25	108	16	7	156	148	112	282	16	45	128	327	20
Gōdāvari, Lower. A ..	34	1	28	2	10	41	75	54	108	11	20	65	128	10
Gōdāvari, Lower. B ..	50	1	339	68	82	490	540	450	908	21	58	471	966	69
Gōdāvari, Lower. C ..	..	..	4	..	..	4	..	..	..	..	..	..	..	..
Total ..	84	2	371	70	92	535	615	504	1,016	32	78	536	1,094	79
Kistna A ..	70	..	74	30	6	110	180	103	252	69	110	172	362	8
Kistna B ..	54	..	357	209	43	609	663	510	1,172	91	193	601	1,365	62
Kistna C ..	..	1	1	..	..	2	..	..	..	..	..	..	..	..
Total ..	124	1	432	239	49	721	843	613	1,424	160	303	773	1,727	70

Total, First Circle.	A ..	150	3	220	41	99	363	513	350	827	103	215	453	1,042	60
	B ..	240	6	1,473	342	145	1,966	2,206	1,742	4,849	170	489	1,912	5,338	294
	C ..	..	97	42	..	2	141	..	..	..	..	..	..	..	
Grand total, First Circle.		390	106	1,735	383	246	2,470	2,719	2,092	5,676	273	704	2,365	6,380	354
Second Circle.															
Bellary ..	A ..	53	2	92	82	4	180	233	66	196	137	436	208	622	30
	B ..	80	1	218	168	17	404	484	377	944	43	132	420	1,076	64
	C ..	..	61	3	1	..	65	..	..	..	..	..	..	..	..
Total ..		133	64	313	251	21	649	717	443	1,140	180	568	623	1,708	94
Anantapur.	A ..	61	..	168	50	6	224	285	174	425	18	54	192	479	93
	B ..	82		479	166	20	665	747	548	1,035	78	198	626	1,233	121
	C ..	..	20	26		..	46	..	..	..	..		..	..	..
Total ..		143	20	673	216	26	935	1,032	722	1,460	96	252	818	1,712	214
Guntur ..	A ..	112	..	292	366	5	663	775	251	886	179	638	430	1,524	345
	B ..	229		739	476	41	1,256	1,485	1,269	3,315	44	215	1,313	3,530	172
	C ..	..	..	53	..	3	56	..	..	..	..	..	..	..	..
Total ..		341	..	1,084	842	49	1,975	2,260	1,520	4,201	223	853	1,743	5,054	517
Kurnool, West.	A ..	64	1	194	44	44	283	347	280	843	26	160	306	1,003	41
	B ..	40	2	277	151	36	466	506	415	1,004	54	214	469	1,218	37
	C ..	..	7	19	..	..	26	..	..	..	..	..	..	..	..
Total ..		104	10	490	195	80	775	853	695	1,847	80	374	775	2,221	78
Kurnool, East.	A ..	17	2	47	29	3	81	98	69	164	12	26	81	190	17
	B ..	29	..	259	85	21	365	394	266	836	21	56	287	892	107
	C ..	..	54	26	..	..	80	..	..	..	..	..	..	..	..
Total ..		46	56	332	114	24	526	492	335	1,000	33	82	368	1,082	124

A = Cases taken to Court. B = Cases compounded. C = Cases undetected.

NOTE.—The variations between the closing balance of last year and these figures are due to transfers from B to A.

Register of breaches of Forest Rules during 1923-24—*cont.*

District.	Cases pending from 1922-23.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorized felling.	Unauthorized grazing.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Second Circle—cont.														
Kurnool, South. A ..	76	1	103	43	1	148	226	157	515	37	167	194	682	32
B ..	42	1	320	106	1	428	470	369	756	47	189	416	945	54
C ..	..	33	39	..	..	72	..	..	..	..	..	..	..	..
Total ..	120	35	462	149	2	648	696	526	1,271	84	356	610	1,627	86
Total, Second Circle. A ..	385	6	896	614	63	1,579	1,964	997	3,029	409	1,481	1,406	4,510	558
B ..	502	4	2,292	1,152	136	3,584	4,086	3,244	7,890	287	1,004	3,531	8,894	555
C ..	..	175	166	1	3	345	..	..	..	..	..	..	..	..
Grand total, Second Circle.	887	185	3,354	1,767	202	5,508	6,050	4,241	10,919	696	2,485	4,937	13,404	1,113
Third Circle.														
Cuddapah, North. A ..	14	..	94	20	7	121	135	98	287	27	74	125	361	10
B ..	25	..	299	39	12	350	375	326	778	22	52	348	830	27
C ..	..	53	40	..	..	93	..	..	..	..	..	..	..	..
Total ..	39	53	433	59	19	564	510	424	1,065	49	126	473	1,191	37
Cuddapah, South. A ..	13	1	79	26	5	111	124	59	150	46	102	105	232	19
B ..	14	..	152	57	13	222	236	207	467	17	50	224	517	12
C ..	..	..	2	..	..	2	..	..	..	..	..	..	..	..
Total ..	27	1	233	83	18	335	360	266	597	63	152	329	749	31
Cuddapah, West. A ..	27	..	202	71	5	278	305	192	453	76	107	268	560	37
B ..	23	..	289	108	2	399	422	334	704	27	66	361	770	61
C ..	..	28	50	1	1	80	..	..	..	..	..	..	..	..
Total ..	50	28	541	180	8	757	727	526	1,157	103	173	629	1,330	98

Third Circle—cont.															
Nellore ..	A ..	254	..	110	306	12	428	682	169	452	364	1,085	533	1,537	149
	B ..	380	..	467	550	13	1,030	1,410	999	1,921	130	270	1,129	2,191	281
	C ..	..	..	14	1	..	15	..	..	..	..	..	..	..	..
	Total ..	634	..	591	857	25	1,473	2,092	1,168	2,373	494	1,355	1,662	3,728	430
Chingleput.	A ..	22	..	58	13	5	76	98	54	117	35	83	89	200	9
	B ..	99	..	482	169	3	654	753	561	916	74	197	635	1,113	118
	C ..	..	..	3	..	..	3	..	..	..	..	..	..	..	..
	Total ..	121	..	543	182	8	733	851	615	1,033	109	280	724	1,313	127
Chittoor ..	A ..	6	..	179	132	24	335	341	118	288	176	419	294	707	47
	B ..	33	..	630	340	66	1,036	1,069	902	1,484	73	212	975	1,696	94
	C ..	..	59	6	5	1	71	..	..	..	..	..	..	..	..
	Total ..	39	59	815	477	91	1,442	1,410	1,020	1,772	249	631	1,269	2,403	141
Vellore, North.	A ..	25	..	522	189	4	715	740	351	932	292	492	643	1,424	97
	B ..	355	..	944	306	12	1,262	1,617	1,209	2,450	81	149	1,290	2,598	327
	C ..	..	14	6	..	6	26	..	..	..	..	..	..	..	..
	Total ..	380	14	1,472	495	22	2,003	2,357	1,560	3,382	373	641	1,933	4,023	424
Total, Third Circle.	A ..	361	1	1,244	757	62	2,064	2,425	1,041	2,659	1016	2,362	2,057	5,021	368
	B ..	929	..	3,263	1,569	121	4,953	5,882	4,538	8,720	424	996	4,962	9,716	920
	C ..	.	154	121	7	8	290	..	..	..	..	..	..	..	..
Grand total, Third Circle.		1,290	155	4,628	2,333	191	7,307	8,307	5,579	11,379	1,440	3,358	7,019	14,737	1,288
Fourth Circle.															
Vellore, South.	A ..	366	..	475	84	7	566	932	528	972	88	288	616	1,260	316
	B ..	438	..	1,111	286	79	1,476	1,914	1,418	3,254	71	198	1,489	3,452	425
	C ..	..	50	47	..	..	97	..	..	..	..	..		..	..
	Total ..	804	50	1,633	370	86	2,139	2,846	1,946	4,226	159	486	2,105	4,712	741

A = Cases taken to Court. B = Cases compounded. C = Cases undetected.

Register of breaches of Forest Rules during 1923-24—*cont.*

District.	Cases pending from 1922-23.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorized felling.	Unauthorized grazing.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Fourth Circle—cont.														
Vellore, West. A	98	..	109	24	18	151	249	143	351	68	149	211	500	38
Vellore, West. B *	18	..	381	95	28	504	522	402	752	47	85	449	837	73
Vellore, West. C ..	..	..	23	..	1	24	..	..	..	..	..	..	.	..
Total ..	(*b*) 116	..	513	119	47	679	771	545	1,103	115	234	660	1,337	111
Salem, East. A	562	1	674	142	21	838	1,400	812	2,671	33	133	845	2,804	555
Salem, East. B *	724	1	1,162	243	8	1,414	2,138	1,401	2,986	67	247	1,468	3,233	670
Salem, East. C ..	..	37	18	1	..	56	..	..	..	..	..	.	..	..
Total ..	1,286	39	1,854	386	29	2,308	3,538	2,213	5,657	110	380	2,313	6,037	1,225
Salem, North. A	11	..	45	18	8	71	82	50	135	11	39	61	174	21
Salem, North. B *	50	1	368	98	14	481	531	418	721	44	117	462	838	69
Salem, North. C ..	..	57	..	..	..	57	..	..	..	..	..	..	..	..
Total ..	61	58	413	116	22	609	613	468	856	55	156	523	1,012	90
Salem, † Central. A *	430	..	573	108	18	699	1,129	710	1,690	10 / (*a*) 110	39 / 567	830	2,296	299
Salem, † Central. B	147	..	694	151	13	858	1,005	480	1,306	27	61	507	1,367	498
Salem, † Central. C ..	..	58	..	..	10	68	..	..	..	..	..	..	..	.
Total ..	(*b*) 577	58	1,267	259	41	1,625	2,134	1,190	2,996	147	667	1,337	3,663	797

Salem, South.	A ..	* 194	1	336	9	2	348	542	325	885	102	179	489	1,279	53
	B ..	* 843	..	1,681	224	26	1,931	2,774	2,200	5,309	(a) 62	215	2,231	5,475	543
	C ..	..	12	20	..	..	32	..		..	31	166	..	..	..
	Total ..	1,037	13	2,037	233	28	2,311	3,316	2,525	6,194	195	560	2,720	6,754	596
Total, Fourth Circle.	A ..	* 1,661	2	2,212	385	74	2,673	4,334	2,568	6,704	484	1,609	3,052	8,313	1,282
	B ..	* 2,220	2	5,397	1,097	168	6,664	8,884	6,319	14,328	287	874	6,606	15,202	2,278
	C ..	..	214	108	1	11	334	..	..	..	..	..	..	..	..
Grand total, Fourth Circle.		3,881	218	7,717	1,483	253	9,671	13,218	8,887	21,032	771	2,483	9,658	23,515	3,560

Reserved forests and unreserved lands.

Fifth Circle.															
Kollegal.	A ..	1	..	81	36	10	127	128	53	106	92	317	125	423	3
	B ..	21	1	181	70	21	273	294	191	425	47	172	238	597	56
	C ..	..	9	..	..	..	9	..	..	..	..	..	..	..	..
	Total ..	22	10	262	106	31	409	422	224	531	139	489	363	1,020	59
Coimbatore, North.	A ..	26	..	97	9	8	114	140	112	418	2	8	114	426	26
	B ..	84	1	608	131	36	776	860	722	1,913	59	236	781	2,149	79
	C ..	..	51	8	9	..	68	..	..	..	..	..	..	..	..
	Total ..	110	52	713	149	44	958	1,000	834	2,331	61	244	895	2,575	105
Coimbatore, South.	A ..	* 29	1	78	10	7	96	125	28	87	38	144	66	231	59
	B ..	* 33	1	145	18	4	168	201	157	399	14	33	171	432	30
	C ..	..	..	1	..	..	1	..	..	..	..	..	..	..	..
	Total ..	62	2	224	28	11	265	326	185	486	52	177	237	663	89
Madura ..	A ..	* 910	..	919	224	17	1,160	2,070	974	3,654	343	981	1,317	4,635	753
	B ..	* 168	2	663	123	9	797	965	632	1,844	20	67	652	1,911	313
	C ..	..	184	29	..	..	213	..	..	..	..	..	..	..	..
	Total ..	1,078	186	1,611	347	26	2,170	3,035	1,606	5,498	363	1,048	1,969	6,546	1,066

* The variations between the closing balance of last year and these figures are due to transfers between A and B.

A = Cases taken to court. B = Cases compounded. C = Cases undetected.

(a) Cases withdrawn. (b) Revised figures furnished by the District Forest Officers.

Register of breaches of Forest Rules during 1923-24—*cont.*

District.	Cases pending from 1922-23.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of the year.
		Injury to forest by fire.	Unauthorized felling.	Unauthorized grazing.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Reserved forests and unreserved lands—cont.														
Fifth Circle—cont.														
Tinnevelly. A	19	..	188	48	1	237	256	198	487	9	12	207	499	49
Tinnevelly. B	335	..	620	164	55	839	1,174	848	1,651	37	112	885	1,763	289
Tinnevelly. C	..	72	13	..	..	85	..	..	..	..	..	..	..	..
Total	354	72	821	212	56	1,161	1,430	1,046	2,138	46	124	1,092	2,262	338
Total, Fifth Circle. A	* 985	1	1,363	327	43	* 1,734	2,719	1,345	4,752	484	1,462	1,829	6,214	890
Total, Fifth Circle. B	* 641	5	2,217	506	125	2,853	3,494	2,550	6,232	177	620	2,727	6,852	767
Total, Fifth Circle. C	..	316	51	9	..	376	..	..	..	..	..	..	..	..
Grand total, Fifth Circle.	1,626	322	3,631	842	168	4,963	6,213	3,895	10,984	661	2,082	4,556	13,066	1,657
Sixth Circle.														
Mangalore, North. A	1	..	47	1	10	58	59	18	28	29	59	47	87	12
Mangalore, North. B	23	2	341	11	12	366	389	299	826	(a) 24	145	323	971	66
Mangalore, North. C	..	23	..	..	..	23	..	..	..	..	..	..	..	..
Total	24	25	388	12	22	447	448	317	854	53	204	370	1,058	78
Mangalore, South. A	30	28	51	8	5	92	122	65	132	(d) 31	45	96	177	26
Mangalore, South. B	227	61	301	58	16	436	663	507	806	(a) 32	58	539	864	124
Mangalore, South. C	..	27	1	..	..	28	..	..	..	..	..	..	..	..
Total	257	116	353	66	21	556	785	572	938	63	103	635	1,041	150
Wynaad.. A	..	..	..	7	..	7	7	5	5	(a) 1	1	7	7	..
Wynaad.. B	..	3	10	18	6	37	37	30	52	1	1	36	71	1
Wynaad.. C	..	..	..	..	..	..	..	..	..	(a) 6	19	..	..	..
Total	..	3	10	25	6	44	44	35	57	8	21	43	78	1

Nilambur.	A	..	1	1	..	..	..	1	2	1	2	..	..	1	2	1
	B	..	3	..	1	..	19	20	23	21	33	..	..	21	33	2
	C	..	..	..	..	..	4	4	..	..	..	..	..	..	..	..
	Total	..	4	1	1	..	23	25	25	22	35	..	..	22	35	3
Palghat	A	..	4+2	..	36	13	9	58	64	37	121	(c) 12	87	50	208	14
	B	..	8—2	(b)	144	54	22	220	226	173	449	(d) 1	56	206	505	20
	C	..	..	..	..	..	..	..	..	..	..	33	..	..	..	..
	Total	..	12		180	67	31	278	290	210	570	46	143	256	713	34
The Nilgiris.	A	..	3	5	11	8	12	36	39	21	42	4	27	25	69	14
	B	..	13	2	189	131	34	356	369	296	788	23	67	319	855	50
	C	..	..	45	..	..	..	45	..	..	..	..	..	..	..	..
	Total	..	16	52	200	139	46	437	408	317	830	27	94	344	924	64
Total, Sixth Circle.	A	..	41	34	145	37	36	252	293	147	330	(c) 79	220	226	550	68
	B	..	272	68	986	272	109	1,435	1,707	1,326	2,954	118	345	1,444	3,299	262
	C	..	..	95	1	..	4	100	..	..	.	..	..	..	..	..
Grand total, Sixth Circle.			313	197	1,132	309	149	1,787	2,000	1,473	3,284	197	565	1,670	3,849	330
Total, Presidency.	A	..	3,583	47	6,080	2,161	377	8,665	12,248	6 448	18,301	2,575	7,349	9,023	25,650	3,225
	B	..	4,804	85	15,628	4,938	804	21,455	26,259	19,719	44.973	1,463	4,328	21 182	49,301	5,077
	C	..	..	1,051	489	18	28	1,586	..	..	..	.	..	..	..	..
Grand total, Presidency.			8,387	1,183	22,197	7,117	1,209	31,706	38,507	26,167	63,274	4,038	11,677	30,205	74,951	8,302

* The variations between the closing balance of last year and these figures are due to transfers between A and B.

A = Cases taken to Court. B = Cases compounded. C = Cases undetected. (a) Cases withdrawn.

(b) Difference due to transfer 2 cases from B to A.

(c) Includes 10 cases in which compounding fees were realised after the cases were taken on file.

(d) Includes 13 cases in which compounding fees were realised after the cases were taken on file and 3 cases withdrawn.

ANNUAL FORM No. 72.

Forest Department, Madras Presidency.

Area of forest tracts protected from fire during the Calendar year 1923.

District.	Forest tracts.	Area protected during the previous year.	During the year under report.			Cost during the year under report.
			Area attempted to be protected.	Fires.	Actually protected.	
	First Circle.	ACS.	ACS.	ACS.	ACS.	RS.
Ganjam ..	Special protection ..	43,377	48,604	807	47,797	2,844
	General do. ..	200,399	218,745	6,737	212,008	2,788
	Total ..	243,776	267,349	7,544	259,805	5,632
Vizagapatam.	Special protection ..	86,530	79,148	600	78,548	1,100
	General do. ..	47,446	58,545	376	58,169	143
	Total ..	133,976	137,693	976	136,717	1,243
Godavari, Upper.	Special protection ..	525,169	530,389	147,990	382,399	6,467
	General do. ..	..	..	..	..	..
	Total ..	525,169	530,389	147,990	382,399	6,467
Godavari, Lower.	Special protection ..	145,936	152,636	11,609	141,027	3,527 * 193
	General do. ..	80,702	82,568	628	81,940	541
	Total ..	226,638	235,204	12,237	222,967	4,261
Kistna ..	Special protection ..	13,987	43,807	50	43,757	460 * 118
	General do. ..	..	..	..	..	..
	Total ..	13,987	43,807	50	43,757	578
Total, First Circle.	Special protection ..	814,999	854,584	161,056	693,528	14,709
	General do. ..	360,276	359,858	7,741	352,117	3,472
	Grand total ..	1,175,275	1,214,442	168,797	1,045,645	18,181
	Second Circle.					
Bellary ..	Special protection ..	1,001	16,505	73	16,432	91
	General do. ..	276,822	237,358	11,955	225,403	..
	Total ..	277,823	253,863	12,028	241,835	91
Anantapur.	Special protection ..	125,991	133,194	130	133,064	442
	General do. ..	328,898	333,076	2,854	330,222	..
	Total ..	454,889	466,270	2,984	463,286	442
Guntur ..	Special protection ..	..	..	..	..	..
	General do. ..	501,984	500,132	2,713	497,419	..
	Total ..	501,984	500,132	2,713	497,419	..
Kurnool, East.	Special protection ..	..	..	..	..	..
	General protection ..	320,554	474,527	17,113	457,414	..
	Early-burning ..	199,380	146,240	11,391	134,849	343
	Total ..	519,934	620,767	28,504	592,263	343
Kurnool, South.	Special protection ..	..	..	..	..	..
	General protection ..	276,400	304,877	48,326	256,551	378
	Early burning ..	160,346	188,178	3,373	184,805	462
	Total ..	436,746	493,055	51,699	441,356	835

* Added to tally with the Accountant-General's figure.

Area of forest tracts protected from fire during the Calendar year 1923—*cont.*

District.	Forest tracts.	Area protected during the previous year.	During the year under report.			Cost during the year under report.
			Area attempted to be protected.	Fires.	Actually protected.	
	Second Circle—cont.	ACS.	ACS.	ACS.	ACS	RS.
Kurnool, West.	Special protection ..	27,937	10,532	342	10,190	1,061
	General protection ..	9,868	9,868	..	9,868	..
	Early burning	348,003	359,348	600	358,748	616
	Total ..	385,808	379,748	942	378,806	1,677
Total, Second Circle.	Special protection ..	154,929	160,231	545	159,686	1,594
	General protection ..	1,714,526	1,859,838	82,961	1,776,877	373
	Early burning	707,729	693,766	15,364	678,402	1,421
	Grand total ..	2,577,184	2,713,835	98,870	2,614,965	3,388
	Third Circle.					
Cuddapah, North.	Special protection ..	78,600	237,683	17,871	219,812	689
	General do. ..	141,138	142,061	4,497	137,564	..
	Total ..	219,738	379,744	22,368	357,376	689
Cuddapah, South.	Special protection ..	* 142,467	231,838	5	231,833	969
	General do. ..	38,357	44,941	..	44,941	..
	Total ..	180,814	276,779	5	276,774	969
Cuddapah, West.	Special protection ..	100,830	289,978	546	289,432	1,262
	General do. ..	199,999	116,621	2,789	113,832	..
	Total ..	300,829	406,599	3,335	403,264	1,262
Nellore ..	Special protection ..	144,359	149,853	900	148,953	1,517
	General do. ..	302,930	316,497	2	316,495	..
	Total ..	454,289	466,350	902	465,448	1,517
Chingleput.	Special protection ..	15,683	15,975	..	15,975	..
	General do. ..	112,488	111,449	..	111,449	..
	Total ..	128,171	127,424	..	127,424	..
Chittoor ..	Special protection ..	100,876	106,113	6,242	99,871	4,114
	General do. ..	396,299	420,658	4,155	416,503	..
	Total ..	497,175	526,771	10,397	516,374	4,114
Vellore, North.	Special protection ..	5,089	14,011	62	13,949	267
	General do. ..	247,675	274,323	3,350	270,973	..
	Total ..	252,764	288,334	3,412	284,922	267
Total, Third Circle.	Special protection ..	587,894	1,045,451	25,626	1,019,825	8,818
	General do. ..	1,445,886	1,426,550	14,793	1,411,757	..
	Grand total ..	2,033,780	2,472,001	40,419	2,431,582	8,818
	Fourth Circle.					
Vellore, South.	Special protection ..	94,261	100,998	195	100,803	872
	General do. ..	182,484	193,280	1,113	192,167	..
	Total ..	276,745	294,278	1,308	292,970	872
Vellore, West.	Special protection ..	83,858	103,423	535	102,888	270
	General do. ..	135,421	141,083	491	140,592	..
	Total ..	219,279	244,506	1,026	243,480	270

* Correct area furnished by the District Forest Officer.

Area of forest tracts protected from fire during the Calendar year 1923—*cont.*

District.	Forest tracts.	Area protected during the previous year.	During the year under report.			Cost during the year under report.
			Area attempted to be protected.	Fires.	Actually protected.	
	Fourth Circle—cont.	ACS.	ACS.	ACS.	ACS.	RS.
Salem, East.	Special protection ..	178,760	190,417	45	190,372	1,164
	General do. ..	143,707	145,836	149	145,687	..
	Total ..	322,467	336,253	194	336,059	1,164
Salem, North.	Special protection ..	71,863	72,845	2,483	70,362	822
	General do. ..	197,109	260,948	4,033	256,915	..
	Total ..	268,972	333,793	6,516	327,277	822
Salem, Central.	Special protection ..	105,018	108,435	695	107,740	1,204
	General do. ..	136,343	145,022	184	144,838	..
	Total ..	241,361	253,457	879	252,578	1,204
Salem, South.	Special protection ..	114,805	116,087	511	115,576	865
	General do. ..	103,850	106,173	6	106,167	..
	Total ..	218,655	222,260	517	221,743	865
Total, Fourth Circle.	Special protection ..	648,565	692,205	4,464	687,741	5,197
	General do. ..	898,914	992,342	5,976	986,366	..
	Grand total ..	1,547,479	1,684,547	10,440	1,674,107	5,197
	Fifth Circle.					
Kollegal ..	Special protection ..	1,201	1,744	52	1,692	154
	General do. ..	559,272	596,942	1,005	595,937	363
	Total ..	560,473	598,686	1,057	597,629	517
Coimbatore North.	Special protection ..	2,073	2,073	..	2,073	345
	General do. ..	503,082	491,552	3,065	488,487	1,732
	Total ..	505,155	493,625	3,065	490,560	2,077
Coimbatore, South.	Special protection ..	46,350	47,350	3	47,347	188
	General do. ..	199,949	200,216	890	199,326	..
	Total ..	246,299	247,566	893	246,673	188
Madura..	Special protection ..	146,416	155,122	3,795	151,327	3,041
	General do. ..	258,189	267,403	3,091	264,312	..
	Total ..	404,605	422,525	6,886	415,639	3,041
Tinnevelly	Special protection ..	32,822	35,688	9,159	26,529	1,557
	General do. ..	200,209	206,712	6,379	200,334	..
	Total ..	233,031	242,400	15,538	226,863	1,557
Total, Fifth Circle	Special protection ..	228,862	241,977	13,009	228,968	5,285
	General do. ..	1,720,701	1,762,825	14,430	1,748,396	2,095
	Grand total ..	1,949,563	2,004,802	27,439	1,977,364	7,380

Area of forest tracts protected from fire during the Calendar year 1923—*cont.*

District.	Forest tracts.	Area protected during the previous year.	During the year under report.			Cost during the year under report.
			Area attempted to be protected.	Fires.	Actually protected.	
		ACS.	ACS.	ACS.	ACS.	RS.
	Sixth Circle.					
Mangalore, North.	Special protection ..	32,678	18,434	4	18,430	899
	General do. ..	197,078	211,468	618	210,850	1,340
	Total ..	229,756	229,902	622	229,280	2,239
Mangalore, South.	Special protection ..	262,617	280,888	594	280,294	2,710
	General do. ..	16,604	*	*	*	*
	Total ..	278,681	280,888	594	280,294	2,710
Wynaad ..	Special protection ..	143,054	139,541	..	139,541	1,996
Nilambur .	Special protection ..	32,763	82,859	45	82,814	4,164
Palghat ..	Special protection ..	125,949	126,229	156	126,073	4,630
	General do. ..	42,289	41,899	23	41,876	..
	Total ..	168,238	168,128	179	167,949	4,630
The Nilgiris.	Special protection ..	76,657	76,657	5	76,652	2,702
	General do. ..	240,171	242,616	251	242,365	..
	Total ..	316,828	319,273	256	319,017	2,702
Total, Sixth Circle.	Special protection ..	673,718	724,608	804	723,804	17,101
	General do. ..	49,5602	495,983	892	495,091	1,340
	Grand total ..	1,169,320	1,220,591	1,696	1,218,895	18,441
Total, Presidency.	Special protection ..	3,108,967	3,719,056	205,504	3,513,552	52,704
	General do. ..	6,635,905	6,897,396	126,793	6,770,604	7,280
	Early burning	707,729	693,766	15,364	678,402	1,421
	Grand total, Presidency	10,452,601	11,310,218	347,661	10,962,558	61,405

* Shown under special protection.

ANNUAL FORM No. 73.

Forest Department, Madras Presidency.

Area closed and open to grazing during 1923–24.

District.	Closed to all animals.		Open to grazing			
			Of all animals except goats.		Of all animals except browsers (sheep and goats).	
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.
FIRST CIRCLE.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Reserved forests.						
Ganjam	92	..	533	..	..	..
Vizagapatam	15	..	284	..	9	..
Godavari, Upper ..	1	..	829	..	..	..
Do. Lower ..	43	..	444	..	..	..
Kistna	35	19	210	..	..	..
Total ..	186	19	2,300	..	9	..
Reserved lands.						
Vizagapatam	..	..	2	..	..	..
Kistna	..	..	1	..	..	..
Total ..	..	..	3	..	..	..
SECOND CIRCLE.						
Reserved forests.						
Bellary	44	..	518	..	..	..
Anantapur	20	41	668	..	..	..
Guntur	65	..	443	..	273	..
Kurnool, East	300	..	670	..	..	..
Do. South ..	379	..	388	3	..	..
Do. West ..	227	..	612	..	..	..
Total ..	1,035	41	3,299	3	273	..
THIRD CIRCLE.						
Reserved forests.						
Cuddapah, North ..	82	..	514	..	..	..
Do. South ..	77	..	385	..	..	..
Do. West ..	63	..	683	..	..	..
Nellore	179	499	39	..	..	..
Chingleput	57	127	15	..	..	..
Chittoor	133	..	690	..	..	..
Vellore, North ..	56	8	386	..	..	..
Total ..	647	634	2,712	..	..	..
Reserved lands.						
Cuddapah, North ..	..	..	1	..	..	..
Nellore	11	..	..	..	..	..
Total ..	11	..	1	..	..	..

Area closed and open to grazing during 1923-24—*cont.*

District.	Closed to all animals.		Open to grazing			
			Of all animals except goats.		Of all animals except browsers (sheep and goats).	
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.
FOURTH CIRCLE.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Reserved forests.						
Vellore, South ..	26	..	454	..	..	..
Do. West	13	..	369	..	..	..
Salem, East	81	12	469	12	..	..
Do. North	45	..	477	..	..	..
Do. Central. ..	21	4	379	..	..	..
Do. South	4	3	307	33	..	..
Total..	190	19	2,455	45	..	..
Reserved lands.						
Vellore, South ..	(*a*) ..	..	..	..	..	..
Do. West ..	..	..	..	..	..	..
Salem, East ..	..	..	12	..	..	..
Do. North ..	..	..	..	..	..	..
Do. Central ..	6	..	6	..	..	..
Do. South ..	..	..	27	..	..	..
Total ..	6	..	45	..	..	..
FIFTH CIRCLE.						
Reserved forests.						
Kollegal	2	1	938	..	..	..
Coimbatore, North ..	87	..	684	..	..	..
Do. South ..	226	..	227	..	..	..
Madura	107	..	243	..	310	..
Tinnevelly	248	..	178	..	..	..
Total ..	670	1	2,270	..	310	..
SIXTH CIRCLE.						
Reserved forests.						
Mangalore, North ..	11	..	348	..	..	..
Do, South ..	10	..	429	..	..	..
Wynaad	..	..	..	..	263	..
Nilambur	108	..	..	..	..	..
The Nilgiris	23	..	389	..	..	..
Palghat	165	..	98	..	..	..
Total ..	317	..	1,264	..	263	..
Reserved lands.						
Nilambur	19	..	..	..	..	..
The Nilgiris ..	10	..	77	..	..	..
Total ..	29	..	77	..	..	..
	346	..	1,341	..	263	..
Grand total, Presidency.	3,091	840	14,300	48	855	..

(*a*) Area less than a square mile.

NOTE.—About six ...

Annual Form No. 74.

Forest Department, Madras Presidency.

Return of grazing in the State forests during 1923–24.

District.	Grazing on payment—Number of animals.									
	At enhanced or special rates.					At full rates.				
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
					Rs.					Rs.
First Circle.										
Reserved forests.										
Ganjām	..	..	..	..	..	(*a*) 7,422	(*a*) 35,450	(*a*) S 278	..	9,456 = 24
Vizagapatam ..	(*b*) 408	(*b*) 6,397	(*b*) S 678	..	3,776	(*a*) 17	(*a*) 4,690	..	..	886
Gōdavari, Upper.	..	..	..	..	..	..	..	..	..	..
Do. Lower.	(*d*) 1,347	(*d*) 590	..	..	1,232	(*e*) 8,204	(*e*) 6,503	..	..	5,727 = 10 † 2
Kistna	(*d*) 802	(*d*) 5,199 (*g*) 3,468	(*d*) S 5,843	..	7,115	(*a*) 5,917	(*a*) 18,114	S 14,719	..	6,995 †= 1,450 = 227 § 205
Total ..	2,557	15,654	S 6,521	..	12,123	21,560	64,757	S 14,997	..	23,064 † 1,450 †= 261 § 205 †§ 2

Return of grazing in the State forests during 1923–24—cont.

District.	Grazing on payment—Number of animals—*cont.*						Grazing free—Number of animals.											
	At privileged rates.						By right under settlement.					During pleasure of Government or otherwise than under settlement.					Total value of fees at full rates.	Grand total of value at full rates.
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received. Actual.	Fees received. Value at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.		
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	26)	(27)	(28)	(29)
First Circle.					Rs.	Rs.					Rs.					Rs.	Rs	Rs.
Reserved forests.																		
Ganjam	..	..	..	..	..	..	(a) 385	(a) 2,993	..	..	706	(a) 240	(a) 1,010	..	..	279	985	10,441 = 24
Vizagapatam ..	..	..	..	..	..	..	..	..	..	..	..	..	(a) 4,078 (b) 153	..	..	765 77	765 77	5,504
Godavari, Upper.	(c) 5,715	(c) 41,701	(c) S 8,694	..	7,185	10,777	..	..	..	..	..	(a) 4,192	(a) 37,408	(a) S 36	..	8,589	8,589	19,366
Do. Lower.	(d) 1,191 (f) 583	(c) 13,130 (f) 13,314	..	..	1,939 869	3,878 3,622	..	..	..	..	..	(e) 905	(e) 9,624	..	..	2,883	2,883	17,342 = 10 † 2
Kistna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14,110 ‡ 1,450 = 227 § 205
Total ..	7,494	68,145	S 8,694	..	9,993	18,277	385	2,993	..	..	706	5,337	52,273	..	..	12,593	13,299	66,763 = 261 † 2 ‡ 1,450 § 205

Note for First Circle.— S = Sheep. † Penning fees. ‡ Revenue from forests handed over to panchayat management. § Sale-proceeds of mangrove leaves. || Sale-proceeds of fodder grass.

(a) Six annas per buffaloe, 3 annas per cow or bullock and 1 anna and 6 pies per sheep.
(b) One rupee per buffaloe, 8 annas per cow or bullock and 4 annas per sheep.
(c) The privileged rates are 4 annas per buffaloe, 2 annas per cow or bullock and 1 anna per sheep.
(d) Twelve annas per buffaloe, 6 annas per cow or bullock and 3 annas per sheep.
(e) Eight annas per buffaloe and 4 annas per cow or bullock.
(f) One anna per buffaloe and 1 anna per cow or bullock.
(g) One rupee per plough bull.

Return of grazing in the State forests during 1923-24—*cont.*

District.	Grazing on payment—Number of animals.									
	At enhanced or special rates.					At full rates.				
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
					Rs.					Rs.
First Circle —*cont.*										
Unreserved lands.										
Ganjam ..	..	..	..	..	..	..	..	..	..	= 2
Godavari, Lower.	..	..	..	..	..	(e) 7,508	(e) 7,419	..	..	= 5,609
										= 951
Kistna	..	..	..	..	..	(a) 590	(a) 166	(a) S 100	..	= 262
										= 50
Total ..	..	..	..	..	..	8,098	7,585	S 100	..	= 6,871
										= 1,003
										28,935
										+ 1,450
Grand Total ..	2,557	15,654	S 6,521	..	12,123	29,658	72,342	S 15,097	..	= 1,264
										= 205
										+ 2
Second Circle.										
Bellary ..	35	1,703	3,278	..	(a) 4,212	4,801	31,906	71,113	..	(e) 14,450
	276	1,333	790	..	(b) 1,140					
Anantapur ..	1,409	44,342	71,792	..	(b) 41,528	..	..	..	..	..
Guntur ..	11,098	67,327	105,188	..	(b) 71,059	235	4,741	..	..	(f) 241
	1,864	3,307	25,998	..	(e) 5,008					
Kurnool, East.	3,090	18,999	32,313	..	(a) 19,895	..	..	..	..	..
	1,194	23,731		..	(d) 26,119					
Do. South.	2,601	16,897	23,537	..	(b) 16,284	..	..	..	..	..
	..	2,574	136	..	(d) 2,642					
Do. West.	39	6,515	10	..	(a) 6,598	..	..	..	..	..
	7 078	30,177	44,940		(d) 31,632					
Total ..	29,084	2,16,905	307,982	..	226,117	5,036	36,647	71,113	..	14,691

Note for Second Circle—
(a) Buffaloes, Rs. 2, cows Re. 1 and sheep 8 annas.
(b) Buffaloes, Re. 1, cows 8 annas and sheep 4 annas.
(c) Buffaloes, 8 annas, cows 4 annas and sheep 2 annas.
(d) Buffaloes, 12 annas, cows 8 annas and sheep 4 annas.
(e) Buffaloes 6 annas, cows 3 annas and sheep 1 anna 6 pies.
(f) Penning fees.

Return of grazing in the State forests during 1923-24—cont.

District.	Grazing on payment—Number of animals—*cont.*						Grazing free—Number of animals.										Grand total of value at full rates.
	At privileged rates.						By right under settlement.					During pleasure of Government or otherwise than under settlement.					
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.		Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Total value of fees at full rates.
					Actual.	Value at full rates.											
	(12)	(13)	(14)	(15)	(16)	(17)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
First Circle —*cont.*					Rs.	Rs.				Rs.					Rs.	Rs.	Rs.
Unreserved lands.																	
Ganjam ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	‖ 2
Godāvari, Lower.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5,609 ‖ 951
Kistna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	262 ‖ 50
Total ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5,871 ‖ 1,003
Grand Total ..	7,494	68,145	S 8,694	..	9,993	18,277	385	2,993	..	706	5,337	52,273	S 36	..	12,593	13,299	72,684 ‖ 1,264 † 2 ‡ 1,450 § 205
Second Circle.																	
Bellary ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	19,802
Anantapur ..	..	..	..	..	..	..	..	..	..	..	(*g*) 1,158	(*g*) 15,117	..	..	8,716	8,716	50,244
Guntūr ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	76,308
Kurnool, East.	..	..	..	..	..	..	..	320	1,675	..	1,158	674	991	217	..	2,448	3,606	49,620
Do. South.	..	..	..	..	..	..	12	11	57	..	29	..	..	..	..	..	29	18,955
Do. West.	..	..	..	..	..	..	261	202	330	..	379	..	..	..	..		379	38,609
Total ..	..	..	..	..	..	..	273	533	2,062	..	1,566	1,822	16,108	217	.	11,164	12,730	2,53,538

Note for First Circle.—S=Sheep. † Penning fees. ‡ Revenue from forest handed over to panchayat manangement. ‖ Sale proceeds of foddergrass.
§ Sale-proceeds of mangrove leaves. (*a*) Six annas per buffaloe, 3 annas per cow or bullock and 1 anna and 6 pies per sheep. (*e*) Eight annas per buffaloe and 4 annas per cow or bullock.

Note for second Circle—cont.

(*g*) No free permits were issued to find out correctly the number of animals allowed to graze free. However these figures have been arrived at by deducting the number of cattle for which permits were taken prior to 1st September 1923 from the average number of animals licensed to graze on payment in the preceding five years.

Return of grazing in the State forests during 1923–24—*cont.*

District.	Grazing on payment—Number of animals.									
	At enhanced or special rates.					At full rate.				
	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Fees received.	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Fees received.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
THIRD CIRCLE.					RS.					RS.
Cuddapah, North.	..	(*a*) 12,808	..	..	12,808	3,462	11,728	58,483	..	8,980 (*b*) 1,567
Do. South.	..	(*a*) 2,440	..	..	2,440	478	18,387	17,375	..	6,256 (*b*) 1,515
Do. West.	..	(*a*) 9,452	..	..	9,452	3,405	27,215	71,203	..	13,055 (*b*) 2,380 (*f*) 2,151
Nellore ..	(*h*) 397	(*i*) 2,183	(*j*) 299	..	1,464	..	..	..	..	(*f*) 1,091 (*g*) 74,020
Chingleput ..	..	..	..	..	..	..	..	..	..	(*f*) 1,048 (*g*) 22,877
Chittoor	(*k*) 1,159	(*l*) 66,546	(*m*) 24,317	..	..	..	..	..	..	40,511 (*f*) 1,461 (*b*) 76 (*n*) 171
Vellore, North ..	(*k*) 326	(*l*) 34,405	(*m*) 22,110	..	23,056	118	1,303	50	..	293 (*f*) 2,802 (*n*) 402
Total ..	1,882	127,834	46,726	..	49,220	7,463	58,633	147,111	..	1,79,656

Note for Third Circle.—

Note.—The full rates are 6 annas per buffaloe, 3 annas per cow, bullock or other animal and 1½ annas per sheep.

(*b*) Penning fees. (*f*) Panchayat fees. (*g*) Kancha revenue.

At enhanced rates or special rates.
(*a*) at rupee 1 per cow.

At privileged rates.
(*c*) at 1 annas per cow.
(*d*) at 6 pies per sheep.
(*e*) at 1 annas 6 pies per cow.

Nellore.—(*h*) 12 annas per buffaloe.
(*i*) 8 annas per cow.

Nellore.—(*j*) 4 annas per sheep.

Chittoor and North Vellore.—(*k*) Rupee 1 per buffaloe.
(*l*) 8 annas per cow.
(*m*) 4 annas per sheep.
(*n*) Grazing block lease in Mamandur range.
(*n*) Grazing block lease in Ammur reserved forest.

NOTE.—Goats are allowed in the artillery practice ground at Chingleput range.

Return of grazing in the State forests during 1923-24—cont.

District.	Grazing on payment—Number of animals—*cont.*						Grazing free—Number of animals.										Total value of fees at full rates.	Grand total of value at full rates.
	At privileged rates.*				Fees received.		By right under settlement.					During pleasure of Government or otherwise than under settlement.						
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Actual.	Value at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.		
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
THIRD CIRCLE.					Rs.	Rs.					Rs.					Rs.	Rs.	Rs.
Cuddapah, North.	..	(c) 260	(d) 563	..	34	102	..	..	..	..	..	70	55	200	..	55	55	23,512
Do. South.	..	..	..	..	..	..	..	584	..	..	109	..	..	..	..	..	109	9,320
Do. West.	..	(e) 140	..	..	13	26	..	..	..	..	..	..	..	..	..	..	..	27,064
Nellore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	76,575
Chingleput ..	..	..	..	..	..	..	..	..	..	..	..	..	81	..	..	15	15	23,940
Chittoor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	42,219
Vellore, North ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	26,553
Total ..	..	400	563	..	47	128	..	584	..	..	109	70	136	200	..	70	179	2,29,183

Return of grazing in the State forests during 1923-24—*cont.*

District.	Grazing on payment—Number of animals.										
	At enhanced or special rates.					At full rates.					
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
FOURTH CIRCLE.					* RS.					RS.
Vellore, South ..	..	..	..	..	..	(a) 101	13,572	4,137	..	7,921
						..	(b) 1,362	..	..	1,362
						..	..	..		(x) — 27
Do. West ..	..	..	..	..	..	(a) 236	25,509	1,887	..	13,462
						2	6,712	3,369	..	3,989
						(s) ..	(b) 7,469	..	..	7,469
						..	..	..	..	(x) + 51
Salem, East ..	..	..	..	..	..	(k) 209	32,566	1,952	..	19,102
						(b) 89	6,735	1,336	..	7,581
						(b) 814	9,292	17,545	..	(l) 11,144
						..	..	..	..	(p) 770
Do. North ..	..	..	..	..	..	(t) 1,048	55,807	1,176	..	28,984
Do. Central.	..	..	..	..	..	(t) 328	41,093	15,040	..	23,612
						(k) 15	18,472	2,226	..	11,033

* The rates should be specified at the foot of the statement.

Note for Fourth Circle.

REMARKS.—The number of cattle on which refund was made last year for good protection under the hill and forest village system is given below:—

Number of cow units

	RS.
Vellore, South	24,795
Do. West	9,771
Salem, East	3,207
Total ..	37,773

(m) 3 annas per cow unit.
(b) 1 rupee per cow unit.
(c) 9 annas per cow unit.
(l) Grazing lease amount.

(p) Grazing assessment for Attur-Kalroyans for 1922-23 collected during 1923-24.
(t) 8 annas a cow, 12 annas a buffaloe and 4 annas a sheep
(x) Added or subtracted to tally with the Accountant-General's audited figure.

State forests during 1923-24—*cont.*

—	Number of animals. At privileged rates.* Buffaloes. (12)	Cows and bullocks. (13)	Goats and sheep. (14)	Other animals. (15)	Fees received. Actual. (16)	Fees received. Value at full rates. (17)	Grazing free—Number of animals. By right under settlement. Buffaloes. (18)	Cows and bullocks. (19)	Goats and sheep. (20)	Other animals. (21)	Value of fees at full rates. (22)	During pleasure of Government or otherwise than under settlement. Buffaloes. (23)	Cows and bullocks. (24)	Goats and sheep. (25)	Other animals (26)	Value of fees at full rates (27)	Total value of fees at full rates. (28)	Grand total of value at full rates. (29)
FOURTH CIRCLE —*cont.*					RS.	RS.												RS.
Vellore, South.	..	(a)10,926	..	..	(c) 5,463	5,463												
	(b) 68	5,046	1,307	..	(c) 5,836	5,836												
	(d) 3,192	(d)15,860	(d) 1,728	..	4,333	11,554	..	..	..	..	..	..	..	..	..	..	..	41,772
	..	..	..	..	(e) 287	287												
	..	1,960	..	..	(f) 735	1,960												
	..	14,832	..	..	(f) 2,781	7,416												
Do. West.	..	(g) 460	..	..	173	230												
	(d) 973	(d) 6,375	(d) 973	..	1,651	4,404												
	..	(m) 1,139	1,684	..	371	990	..	..	..	..	..	..	..	..	..	..	..	31,997
	..	(h) 852	..	..	213	416												
	(i) 23	186	8	..	89	118												
	..	1,717	..	..	(j) 322	858												

Note for Fourth Circle—cont.

(*a*) 8 annas per cow unit.
(*b*) 1 rupee per cow unit.
(*c*) Collection was made at full rate and this amount will be refunded if protection is perfect.
(*d*) Javadi hill cattle at 3 annas per cow unit to be refunded if protection is perfect.
(*e*) Part adjustment of grazing deposit for Javadi cattle for 1921-22.
(*f*) Actual collection.
(*g*) 6 annas per cow unit.
(*h*) 4 annas per cow unit.
(*i*) 6 annas per cow unit to be refunded if protection is perfect.
(*j*) Collection from panchayatdars credited to V (*b*) and excluded from grand total in column 16 to tally with the Accountant-General's figures.
(*k*) 9 annas per cow unit.

Return of grazing in the State forests during 1923-24—*cont.*

District.	Grazing on payment—Number of animals—*cont.*									
	At enhanced or special rates.					At full rates.				
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals	Fees received.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
FOURTH CIRCLE —*cont.*					Rs.					Rs.
Salem, South ..	(*b*) 11	1,084	63	..	1,138	..	(*g*) 5,797	2,612	2	2,664
						(*k*) 181	10,116	26,853	..	16,821
						..	..	..	..	(*u*) 3
						..	..	..	..	(*v*) 280
Tanjore ..	..	..	..	..	..	..	(*b*) 282	..	..	141
Total ..	11	1,084	63	..	1,138	3,023	240,784	78,133	2	1,56,362
FIFTH CIRCLE.										
Kollegal ..	(*a*) 3,840	(*a*) 89,689	S (*a*) 2,761	..	49,375	..	..	..	..	..
Coimbatore, North.	(*a*) 3,246	(*a*) 63,369	S (*a*) 20,570	..	40,073	..	..	..	..	..
	..	(*b*) 1,167	S (*b*) 156	..	1,245	..	..	..	..	..
	..	(*c*) 12	..	..	3	..	..	..	..	..
Coimbatore, South.	(*x*) 35	(*a*) 4,875	S (*a*) 146	..	2,509	(*a*) 346	(*a*) 3,450	..	..	2,071 *
	..	..	..	..	..	(*b*) 8	(*b*) 190	..	..	206
Madura ..	(*c*) 69	(*c*) 3,662	S (*a*) 3,250	(*d*) 5	1,357	..	..	..	..	..
	..	(*e*) 47	..	..	29	..	..	..	..	..
	..	(*f*) 24,098	S (*f*) 728	..	18,347	..	..	..	..	..
Tinnevelly ..	(*a*) 631	(*a*) 12,989	S (*a*) 13,597	..	10,525	159	2,086	S 8,293	..	1,228
Total ..	7,821	199,908	41,208	5	1,23,463	513	5,726	8,293	..	3,505

(*u*) Fees collected for 100 grass permits at 6 pies each.
(*v*) Grazing lease amount for unreserved land in Trichinopoly taluk.

Note for Fifth Circle.—

Full rates.—As. 6 per buffaloe, As. 3 per cow or bullock and As. 1½ per sheep.

S=Sheep.

(*a*) Re. 1 per buffaloe, As. 8 per cow or bullock and As. 4 per sheep. | (*d*) As. 4 per other animal.
(*b*) Rs. 2 per buffaloe, Re. 1 per cow or bullock and As. 8 per sheep. | (*e*) As. 10 per cow or bullock.
(*c*) As. 8 per buffaloe, As. 4 per cow or bullock and As. 2 per sheep. | (*f*) As. 12 per cow or bullock.

Return of grazing in the State forests during 1923–24—*cont.*

District.	Grazing on payment—Number of animals—*cont.*						Grazing free—Number of animals.										
	At privileged rates.						By right under settlement.					During pleasure of Government or otherwise than under settlement.					
					Fees received.												
	Buffaloes.	Cows and bullocks.	Goats and sheep	Other animals	Actual	Value at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Total value of fees at full rates.	Grand total of value at full rates.
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
					Rs.	Rs.					Rs.					Rs.	Rs.	Rs.
FOURTH CIRCLE—*cont.*	(*m*) 22	1,293	..	..	251	753												
	..	3,994	..	..	(*n*) 660	2,247							(*n*) 1,285	..	..	723	723	50,820
Salem, East ..	..	1,680	..	..	(*o*) 762	945	..	..	..	..	..	..	(*o*) 2,613	..	..	1,470	1,470	
	..	999	..	..	(*q*) 1,778	1,778	..	..	..	..	..							
	..	4,307	..	..	(*r*) 4,307	4,307												
Do. North ..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	..	..	28,984
Do. Central.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	34,645
Do. South ..	..	47,067	..	..	(*w*) 8,825	8,825	14	332	58	..	73	..	..	..	..	..	73	29,804
Tanjore ..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	141
Total ..	4,728	118,693	5,700		(*j*)38,515	58,397	14	332	58	..	73	..	3,898	..	..	2,193	2,266	2,18,163
FIFTH CIRCLE—*cont.*																		
Kollegal ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	49,375
Coimbatore, North.	(*g*) 2	(*g*) 18	..	..	3	11	..	..	..	..	..	..	..	..	..	..	..	41,332
Coimbatore, South.	..	..	..	..	..	..	..	..	..	..	..	..	30	..	..	15	15	4,801
Madura ..	..	..	..	..	..	..	..	..	..	..	..	245	3,554	..	..	1,011	1,011	20,744
Tinnevelly ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11,753
Total ..	2	18	..	..	3	11	..	..	..	..	..	245	3,584	..	..	1,026	1,026	1,28,005

(*n*) Rs. 659-14-0 was actually collected for grazing 5,279 cow units at 2 annas per cow unit under Chitteri hill village system. Of this amount Rs. 642-3-0 was refunded for good protection Hence 1,285 cow units are shown as grazed free in column 24.

(*o*) Rs. 762 was actually collected for grazing 4,293 cow units in Attur—Kalroyans at 3 annas per cow unit under the hill village system. Of this amount Rs. 490 was refunded for good protection. Hence 2,613 cow units are shown as grazed free in column 24.

(*q*) Panchayat grazing fee for certain reserves in Harur Range. The number of cow units was arrived at by converting at 9 annas per cow unit the prevailing rate in that Range. (*r*) Panchayat grazing fee for certain reserves and unreserves in Kallakurichi Range. The number of cow units was arrived at by converting at Re. 1 per head the prevailing rate in that Range. (*s*) 8 annas a cow, 12 annas a buffalo and 3 annas a sheep.

(*w*) Panchayat assessment for class V forests. The number of cow units was arrived at by converting at 3 annas per cow unit.

(*g*) As. 4 per buffalo and As. 2 per cow or bullock. (*j*) Total of columns 6, 11 and 16 will give Accountant-General's figure.

Return of grazing in the State forests during 1923-24—*cont.*

District.	Grazing on payment—Number of animals.									
	At enhanced or special rates.					At full rates.				
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
SIXTH CIRCLE.					RS.					RS.
Reserved forests.										
Mangalore, North.	(*a*) 1,480	12,877	..	..	5,754	..	..	..	..	..
Mangalore, South.	(*a*) 2,299	15,823	..	..	7,371	..	..	..	..	..
		(*b*) 24,861			3,108					
Wynaad ..	(*c*) 2,575	4,306	..	..	4,728	..	..	..	..	..
Nilambur ..	(*d*) ..	..	..	..	..	..	..	..	..	..
Nilgiris ..	(*e*) ..	1,667	7	..	835	(*g*) 11,555	19,674	2,185	..	8,280
						* 215	* 135			
	(*e*) ..	5,650	28,377	..	150	..	..	..	..	..
	(*f*) ..	679	360	..	859	..	..	..	..	..
Palghat ..	(*c*) 61	6,819	1,359	..	3,810	..	..	..	..	..
					(*h*) 1,577					
Total ..	6,415	72,682	30,103	..	28,192	11,770	19,809	2,185	..	8,280
Reserved lands.										
the Nilgiris ..	..	..	..	..	..	..	..	..	..	..
Total, VI Circle.	6,415	72,682	30,103	..	28,192	11,770	19,809	2,185	..	8,280
Grand total, Presidency.	47,770	634,067	432,603	5	4,40,253	57,463	433,941	321,932	2	3,94,350

Note for Sixth Circle—

(*a*) Buffalo As. 10, cow or bullock As. 6.
(*b*) Cattle admitted to Kulkunda cattle fair at As. 2 per head.
(*c*) Buffalo Re. 1, cow or bullock As. 8, sheep As. 4.
(*d*) No grazing allowed in the district.
* Calves—half rate.
(*e*) Slaughter cows As. 3 per 50 per day, sheep As. 1½ per 50 per day.
(*f*) Buffalo Rs. 2, cow or bullock Re. 1, sheep As. 8.
(*g*) Buffalo As. 6, cow or bullock As. 3, sheep As. 1½.
(*h*) Panchayat grazing fees.

Return of grazing in the State forests during 1923-24—cont.

District.	Grazing on payment—Number of animals—*cont.*						Grazing free—Number of animals.										
	At privileged rates.						By right under settlement.					During pleasure of Government or otherwise than under settlement.					
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.		Buffaloes	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Buffaloes	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Total value of fees at full rates.	Grand total of value at full rates.
					Actual.	Value at full rates.											
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
SIXTH CIRCLE —*cont.*					Rs.	Rs.					Rs.					Rs.	Rs.	Rs.
Reserved forests —cont.																		
Mangalore, North.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5,754
Mangalore, South.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10,479
Wynaad ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,728
Nilambur ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nilgiris ..	..	..	..	..	..	..	..	..	..	..	..	90	..	..	..	34	34	9,299
Palghat ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6,246
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	..	..	..	..	..	..	..	..	..	..	..	90	..	..	..	34	34	36,506
Reserved lands. —cont.																		
The Nilgiris ..	..	..	..	..	..	..	..	..	..	..	..	1,797 * 21	195 * 26	..	..	717	717	717
Total, VI Circle.	..	..	..	..	..	..	..	..	..	..	..	1,908	221	..	..	751	751	37,223
Grand total, Presidency.	11,774	187,256	14,957	..	48,558	76,813	672	4,442	2,120	..	2,464	9,392	76,220	453	..	27,797	30,251	9,41,667

* Calves—half rate.

Abstract of animals permitted to graze on payment in reserved forests and reserved lands in the Presidency.

Circle.	Buffaloes.	Bullocks and cows.	Sheep.	Other animals.	Total.
First Circle	39,709	156,141	30,312	..	226,162
Second ,, ...	34,120	253,552	379,095	..	666,767
Third ,, ...	9,345	186,867	194,400	..	390,612
Fourth ,, ...	7,312	360,561	83,896	2	451,771
Fifth ,, ...	8,536	205,652	49,501	5	263,494
Sixth ,, ...	18,185	92,491	32,288	..	142,964
Grand total ..	117,007	1,255,264	769,492	7	2,141,770

ANNUAL FORM No. 75-A.

Forest Department, Madras Presidency.

Progress in reproduction and afforestation under working plans or schemes during the forest year 1923–24.

ANNUAL FORM No. 75-A.

Forest Department, Madras Presidency.

Progress in reproduction and afforestation under working plans or schemes during the forest year 1923–24.

(1) Division.	(2) Working circle and block.	(3) Period.	(4) Area to be regenerated during period.	(5) Method of treatment.	(6) Area in which regeneration was in progress at commencement of year 1st April 1923.	(7) Area on which regeneration commenced during the year, 1st April 1923 to 31st March 1924	Area on which regeneration is complete. (8) Previous.	(9) During year, 1st April 1923 to 31st March 1924.	(10) Total to 31st March 1924.	(11) Area on which regeneration is still in progress at close of year 31st March 1924.	Expenditure during the year. (12) Creation.	(13) Upkeep.	Expenditure commencement of period. (14) Creation.	(15) Upkeep.
	FIRST CIRCLE.	YEARS.	ACS.		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	RS.	RS	RS.	RS.
Godavari, Lower. Ganjam.	Plains Sal Timber Working Circle.	1919–20 to 1934–35.	2,506	Clear felling and natural regeneration.	Nil.	163	702	163	865	Nil.	653	594	3,480	2,463
	Ravine Working Circle ..	1920–21 to 1939–40.	2,605	Do.	Nil.	Nil.	255	..	255	..	..	435	3,038	970
	New Casuarina Plantation, Kandikuppa Reserve.	10 years from 1923–24.	568	Do.	..	20	..	..	..	568	491	..	491	..
	Total ..	..	5,679	..	..	183	957	163	1,120	568	1,144	1,029	7,009	3,433
	SECOND CIRCLE.													
Bellary, Kurnool South, Guntur and Kurnool, East—Nil.														
Kurnool, West.	Weldurti Interim Working Plan.*	10	15 acres operation repeated in this. 15 acres from 1921–22. Success not yet attained due to scanty rainfall.	A modification under the sanction accorded by the working scheme, viz., ploughing whole area, sowing in lines 20 feet apart forest species intervening spaces occupied by field crops. Lines of forest species are mulched to a width of 2 feet on either side of seedlings.	15	15	..	..	..	15	..	86	40 0 0	191
Anantapur.	Amagondapalaiyam R.F. compartments I and II.	1923–24.	PTS. ACS. 2 2 each.	Dibbling of seeds under the shade of post plants.	PTS. ACS. 13 2 each.	Nil.	26	..	26	26	..	74	58 6 6	(a) 74

Anantapur—*cont.*	Penukonda R.F. compartments I and II.	Do.	1	2	Do.	3 each	2	Nil.	6	..	6	6	..	7	5 7 0	(*b*)	7
	Gundumala R.F. compartments I and II.	Do.	1	2	Do.	4 each	2	Nil.	8	..	8	8	..	8	9 0 0	(*b*)	8
	Madakasira R.F compartments I and II.	Do.	1	2	Do.	4 each	2	Nil.	8	..	8	8	..	4	..	(*b*)	4
	Ratnagiri R.F. compartments I and II.	Do.	1	2	Do.	7 each	2	Nil.	14	..	14	14	..	6	..	(*b*)	6
	Total ..	..	42		..	77	15	62	..	62	62	..	185	212 13 6		290	
	THIRD CIRCLE.																
West North Vellore. Cuddapah.	Ragimanipenta, Ganganapalle Idupulapaya.	1923-24.	Not specified.		Broadcast sowing and collection of seeds red sanders.	Nil.	5	Nil.	5	(*a*) 5	Nil.	37	..		37	..	
	The Palar Plantations ..	Do.	Do.		Filling up blanks in felled area.	..	107	533	107	(*b*) 640	..	32	..		23,917	1,39,198	
	Total ..	..	..		..	..	112	533	112	645	..	69	..		23,954	1,39,198	
	FOURTH CIRCLE																
South Vellore	Polur Range	..	..		..	..	..	13,606	..	13,606	..	..	..		952	..	
	Santhavasal Range ..	..	..		..	..	..	17,362	..	17,362	..	..	..		760	..	
	Gingee Range	..	..		..	..	..	48	..	48	..	..	..		..	..	
	Total ..	..	..		..	..	..	†31,016	..	31,016	..	..	..		1,712	..	
East Salem.	Salem East Range Working Plan.	20	1,453		Sowing and dibbling of seeds	1,284	151	1,284	151	1,435	..	Free of cost.			589	..	
	Attur Range Working Plan	20	1,840		Tending and sowing	1,331	102	1,331	102	1,433	..	Do.			212	67	
	Ponniar Working Circle.	30	Nil.		Nil.	87	..	87	..	87	..	..			68	..	
	Elavambadi Working Circle	30	Nil.		Nil.	83	..	83	..	83	..	..			85	..	
	Harur Working Circle ..	30	Felling operations stopped.		Sowing and dibbling of seeds.	1,779	443	1,779	443	2,222	..	Free of cost.			1,326	5	
	Chitteri North Working Circle.	30	Nil.		Nil.	331	5	331	5	336	..	Do.			46	56	
	Chitteri South-west Working Circle.	25	Nil.		Nil.	180	..	180	..	180	..	Do.			94	94	
	Chitteri Sandal Working Circle.	5	2,800		Tending and sowing of seeds.	611	..	611	..	611	..	..			141	231	
	Kottapatti Sandal Working Circle.	5	Nil.		Nil.	975	12	975	12	987	..	Free of cost.			97	339	
	Tirukoilur Range Working Circle.	30	205		Sowing with seeds of avaram, etc., in felled coupes for two years in succession.	..	221	..	221	221	..	Do.			..	..	
	Total ..	..	6,298		..	6,661	934	6,661	934	7,496	..	..			2,667	792	

* The results of work done and exhibited are not covered by either a working plan or a working scheme except what has been done in the Veldutty reserve. The remainder shown in 18-B statement is suggested from year to year and approved by Conservator.

Note for Second Circle. { (*a*) No new plots were opened out during the year but only plots 6 to 13 were redibbled. (*b*) No new plots were dibbled as the season was unfavourable.

Note for Third Circle .. (*a*) Of this sowing in 3 acres was a failure. (*b*) Of this sowing in 505 acres was a failure.

† Whole area excluded as per Form No. 75 (sowings in sandal coupes). Hence excluded from circle total.

Progress in reproduction and afforestation under working plans or schemes during the forest year 1923-24—*cont.*

Division.	Working circle and block.	Period.	Area to be regenerated during period.	Method of treatment.	Area in which regeneration was in progress at commencement of year 1st April 1923.	Area on which regeneration commenced during the year, 1st April 1923 to 31st March 1924.	Area on which regeneration is complete.			Area on which regeneration is still in progress at close of year, 31st March 1924.	Expenditure during the year.		Expenditure commencement of period.	
							Previous.	During year 1st April 1923 to 31st March 1924.	Total to 31st March 1924.		Creation.	Upkeep.	Creation.	Upkeep.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	FOURTH CIRCLE—*cont.*	YEARS.	ACS.		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	RS.	RS.	RS.	RS.
	(a) Mainly Natural.													
Central Salem.	Manjavadi Sandal Felling Series Coupes I to V.*	..	..	....	120	..	120	..	120	..	..	45	128	135
	Papireddipatti Sandal Felling Series Coupes I to V.*	..	..	....	120	..	120	..	120	..	..	45	175	180
	Kurichi Sandal Felling Series Coupes III to V.*	..	..	....	69	..	69	..	69	..	..	..	44	..
	(b) Mainly Artificial.													
	Shevaroys Central Working Circle.	4	321	Planting silver Oak and Cypress and sowing seeds of Australian wattle.	143	..	143	..	143	..	..	..	9,096	..
	Ramaswamimalai Series.	30	2,107	....	..	172	..	172	172	..	..	..	..	..
	Manakondamalai do.	30	2,157	....	..	124	..	124	124	..	..	..	..	..
	Gundakkal do.	30	2,277	....	..	127	..	127	127	..	..	..	..	..
	Thoppur, North do.	30	3,596	....	..	287	..	287	287	..	..	..	..	..
	Do. South do.	30	2,767	....	..	175	..	175	175	..	..	..	..	..
	Sholapadi Charcoal Working Circle.	30	935	Sowing seeds of indigenous species.	68	116	68	116	184	..	..	..	..	..
	Total ..	..	14,160	....	520	1,001	520	1,001	1,521	..	..	90	9,443	315

South Salem.

Vaiyampatti Range.													
Veeramalai Working Circle.	1919-20 to 1923-24	467		34	83	350	77	427	40	10	..	15	..
Shemmalai Working Circle.	Do.	654		..	145	509	71	580	74	9	..	43	..
Karuppur Reddiapatti Working Circle.	Do.	504	(1) Felling of fuel coupes under 'simple coppice.'	46	85	373	131	504	..	7	..	17	..
Sorupam Panjanthangi Working Circle.	Do.	219		7	44	168	22	190	29	9	..	22	..
Musiri Range.			(2) Sowing seeds of indigenous timber species.										
Ammapalayam Working Circle.	1923-24	19		..	19	..	19	19	..	..	..	..	..
Perambalur Range.													
Ladapuram Working Circle.	1923-24	19		..	19	..	19	19	..	..	..	..	..
Thondamanthurai Working Circle.	Do.	21		..	21	..	21	21	..	..	..	..	..
Arasalur Working Circle .	1921-22 to 1923-24	82		..	34	48	34	82	..	..	..	..	..
Vilangudi Series ..	Do. to 1923-24	382	(1) Felling fuel coupes reserving specified trees as standards.	..	130	252	110	362	20	2	..	2	..
Alavoy do. ..	Do.	394		..	120	274	120	394	..	2	..	2	..
Periyavalayam do. ..	Do.	285		..	90	195	90	285	..	..	..	..	..
Siluvacheri do. ..	Do.	187	(2) Sowing valuable timber species to restock blanks.	..	50	137	50	187	..	2	..	2	..
Mudukulam do. ..	Do.	405		..	146	259	73	332	73	2	..	2	..
Tirukonam do. ..	Do.	311		..	116	195	116	311	..	42	..	52	..
Namakkal Range.													
Karavallijambuthu Working Circle.	1918-19 to 1923-24	222	(1) Felling fuel coupes under simple coppice.	32	40	150	36	186	36	..	..	..	..
Thammampatti Range.													
Mavar Working Circle ..	1921-22 to 1923-24	76	(2) Sowing seeds of indigenous timber species.	..	31	45	15	60	16	..	..	..	..
Gangavalli Working Circle.	1922-23 to 1923-24	81		..	42	39	42	81	..	..	..	..	..
Total ..	..	4,328	....	119	1,215	2,994	1,046	4,040	288	85	..	167	..
Grand total, Fourth Circle.	..	24,786	....	7,300	3,150	10,175	2,981	13,156	288	85	90	12,207	1,107

* These refer to opening of specially tended plots in sandal coupes.

Progress in reproduction and afforestation under working plans or schemes during the forest year 1923-24—*cont.*

(1) Division.	(2) Working circle and block.	(3) Period.	(4) Area to be regenerated during period.	(5) Method of treatment.	(6) Area in which regeneration was in progress at commencement of year, 1st April 1923.	(7) Area on which regeneration commenced during the year, 1st April 1923 to 31st March 1924.	Area on which regeneration is complete.			(11) Area on which regeneration is still in progress at close of year, 31st March 1924.	Expenditure during the year.		Expenditure commencement of period.	
							(8) Previous.	(9) During year 1st April 1923 to 31st March 1924.	(10) Total to 31st March 1924.		(12) Creation.	(13) Upkeep.	(14) Creation.	(15) Upkeep.
			ACS.		ACS.	ACS.	ACS.	ACS	ACS.	ACS.	RS.	RS.	RS.	RS.
Coimbatore, South.	FIFTH CIRCLE. *Mount Stuart Working Circle.*													
	1923 regeneration area ..	..	..	..	..	..	251·20	..	251·20	..	1,371	4,722	5,055	4,722
	1922 do. ..	..	..	..	..	..	126·08	..	126·08	..	..	775	3,358	3,384
	Mudi plantation	..	..	..	..	..	8·30	..	8·30	..	..	..	..	..
	Waterfall plantation ..	..	..	..	..	..	11·50	..	11·50	..	..	..	..	..
	1918-19 regeneration area.	..	..	..	..	..	28·48	..	28·48	..	..	..	643	449
	1919-20 do.	..	..	..	..	..	8·32	..	8·32	..	..	..	584	356
	1920-21 do.	..	..	..	..	..	29·12	..	29·12	..	..	..	545	1,056
	Experimental plantation at top slip.	..	..	..	..	..	1·50	..	1·50	..	..	..	..	12
	Experimental plantation at Mount Stuart.	..	..	..	..	..	5·00	..	5·00	..	..	3	..	3
	Experimental plantation at Karian shola.	..	..	..	..	..	0·50	..	0·50	..	..	..	..	..
	1924 regeneration area ..	1st Apr. 1923 to 31st March 1924.	226	Clearing, burning and dibbling teak and other seeds.	..	226	..	226	226	..	5,887	..	5,887	..
	Punachi Working Circle.													
	25-acre plot in Coupes XIV and XV.	Do.	25	Do.	..	25	..	25	25	..	439	..	439	..
	Regeneration plots in Coupes IX and X.	..	..	..	..	..	5·00	..	5·00	..	..	..	86	122

Tinnevelly.	2-acre plot in Coupe II ..	..	..	..	..	..	2·00	..	2·00	..	..	..	75	27
	3-acre plot in Coupe XV..	..	..	..	..	..	3·00	..	3 00	..	..	18	146	98
	10-acre plot in Coupe XV.	..	..	..	..	..	10·00	..	10 00	..	16	283	245	283
	Kuttalam Working Circle.	..	..	Dibbling seeds ..	..	..	106	..	106	..	..	..	88	73
	Vadagarai Melpidagai ..	..	..	..	..	..	4	..	4	..	..	..	11	7
	Siva Sailam, Working Circle.	..	..	..	..	..	216	..	216	..	..	..	..	..
	Koilteri, Working Circle	..	..	..	..	..	269	..	269	..	..	..	437	76
	Kodamady	..	..	..	..	..	58	..	58	..	..	..	281	11
	Aladiyur	..	..	..	..	..	9	..	9	..	..	..	29	..
	Kannikatty, Old	..	..	..	..	..	129	..	129	..	..	..	407	85
	Padarmalai WorkingCircle.	..	..	..	..	..	173	..	173	..	..	..	560	47
	Valliyur, 1905	..	..	..	..	..	85	..	85	..	..	..	..	10
	Kaliavur	..	..	..	..	..	201	..	201	..	..	..	563	1,370
	Srivilliputtur Range ..	1923-24.	0·30	Dibbling sandal seeds in small plots and fencing the area and watering the plots	..	0·30	..	0·30	0·30	..	..	..	..	.. (a)
	Kuttalam do. ..	Do.	1·20		..	1·20	..	1·20	1 20	..	..	..	..	..
	Kodamady do. ..	Do.	1·20		..	1·20	..	1·20	1·20	..	..	..	..	..
	Kannikatty do. ..	Do.	0·60		..	0·60	..	0·60	0 60	..	..	..	..	..
	Nanguneri do. ..	Do.	0·60		..	0·60	..	0·60	0·60	..	..	..	..	..
	Tinnevelly do. ..	Do.	0·10		..	0·10	..	0·10	0·10	..	..	..	..	..
	Kodamady Range. 1921-22 experimental regeneration area.	Do.	51	Clearing, burning and dibbling seeds of shola species.	..	51	185	51	236	..	633	..	3,145	720
	Kannikatty Range. 1921-22 experimental regeneration area.	Do.	53		..	53	157	53	210	..	634	..	2,613	594
	Total ..		359	..	..	359	2,082	359	2,441	..	8,980	5,801	25,137	13,504
Nilambur.	SIXTH CIRCLE.													
	Plantation Working Circle.	1st April 1923 to 31st March 1924.	81	Artificial reproduction.	49	53	6,839	49	7,015	53	10,203	7,899	6 00,253	(b) 5,89,226
	Conversion do.	Do.	To be fixed by the District Forest Officer.	Do.	127	161		127		161				
	Cocoanut plantation ..	Do.	..	Do.	..	..	37	..	37	..	..	242	884	6,709
	Other divisions—Nil.													
	Total ..		81	..	176	214	6,876	176	7,052	214	10,203	8,141	6,01,137	5,95,935
	Grand total, Presidency ..		30,947	..	7,553	4,033	20,685	3,791	24,476	1,132	20,486	15,246	6,69,717	7,53,467

(a) Work done by subordinates free of cost. (b) The 49 acres added to the total is strictly speaking, incorrect, as it is the replacement of the existing plantation finally felled, column 14 is similarly affected.

Note for the Fifth Circle.—A sum of Rs. 575 was spent in collection of seeds in Coimbatore, South, and Rs. 285, in Tinnevelly.

ANNUAL FORM
Forest Department
Plantations not under working-plans

Division and forest.	Method of formation and year of commencement.	Area in acres.			
		At commencement of year, 1st April 1923.	Added during year, 1st April 1923 to 31st March 1924.	Excluded during year, 1st April 1923 to 31st March 1924.	On 31st March 1924.
(1)	(2)	(3)	(4)	(5)	(6)
FIRST CIRCLE.					
Visagapatam	1st March 1895	51	..	..	51
Godavari, Upper	Taungya operation, 1920-21.	98	..	..	98
....	Clear-felling to establish a better quality of trees and artificial Regeneration of blanks (burnt patches) in the clear felled areas, by ploughing and sowing including special tending for three years from 1921-22.	191	274	..	465
Kistna	....	34	..	26	8
Total ..	....	374	274	26	622
SECOND CIRCLE.					
Regular Plantations.					
Bellary—					
Moka	1907	579	..	90	489
Guntur—					
Veddullapalli forest ..	....	150	..	150	..
Kurnool, West—					
Pecheruvu and Nagaluty.	....	1,430	..	200	1,230
Kurnool, East	Not known	124	..	2	122
Kurnool, South	....	..	110	..	110
Anantapur	....	..		Nil.	
Taungya Plantations.					
Kurnool, West	....	254	58	..	312
Do. East	....	..	40	..	40
Other districts	....	..		Nil.	
Cultural Operations.					
Bellary—					
Kuppagal and Banavasi.	1905-06	6,790	..	5,998	792
Guntur—					
Muttayapalem	1912-13	4½	..	..	4½
Venkatapalem—					
Extension I, (Yepi)	1912-13	12	..	..	12
Kurnool, West	....	6,813	144	..	6,957
Do. East	....	632	158	..	790
Do South	....	..	12	..	12
Anantapur	....	..	..	..	..
Total ..	....	16,788½	522	6,440	10,870½

No. 75-B

Madras Presidency.

during the forest year 1923-24.

Expenditure total during the year.		Expenditure from commencement.			Total area written off from start.	Expenditure in failed areas.	Expenditure from commencement excluding failed areas.	Revenue during the year.	Total revenue from date of creation.
Creation. (7)	Upkeep. (8)	Creation. (9)	Upkeep. (10)	Total. (11)	(12)	(13)	(14)	(15)	(16)
RS.	RS.	RS.	RS.	RS.	ACS.	RS.	RS	RS.	RS.
..	102	2	2,416	2,418	..	..	..	396	5,660
15	92	383	469	852	..	337	515	..	3,609
10,981	54	16,651	64	16,715	..	..	16,715	9,047	37,159
..	9	1,667	7,579	9,246	..	..	..	.	4,125
10,996	257	18,703	10,528	29,231	..	337	17,230	9,443	50,553
..	..	7,958	53,499	61,457	90	11,312	61,457	276	7,291
..	..	..	..	..	(a) 150	..	..	..	..
..	930	2,92,254	69,609	3,61,863	(d) 200	40,800	3,21,063	4,542	24,761
..	..	38,471	26,045	64,516	(b) 9	4,489	60,027	..	..
1,755	..	1,755	..	(c) 1,755	..	..	..	..	..
					Nil.				
1,073	..	5,837	..	5,837	..	..	..	523	718
195	..	195	..	195	..	195	195	..	..
					Nil.				
..	..	3,795	667	4,462	5,998	26,525	4,462	..	..
..	..	22	..	22	..	..	..	..	..
..	..	26	..	26	..	..	..	..	..
610	3,748	32,471	7,487	39,958	..	..	..	254	254
493	300	12,437	4,104	16,541	..	..	..	..	..
392	..	392	..	392	..	..	..	..	..
					Nil.				
4,518	4,978	3,95,613	1,61,411	5,57,024	6,447	83,321	4,47,204	5,595	33,024

(a) Excluded as the reserve is to be disforested.

(b) 6·40 acres were written off during 1922-23; but the proportionate cost for the failed area was not deducted. As the actual expenditure on the failed area is not known, the average cost has been deducted.

(c) The works shown in Form 75 of last year (1922-23) have been omitted as they were written off.

(d) With field crops.

Plantations not under working-plans dr

Division and forest.	Method of formation and year of commencement.	Area in acres.			
		At commencement of year, 1st April 1923.	Added during year, 1st April 1923 to 31st March 1924.	Excluded during year, 1st April 1923 to 31st March 1924.	On 31st March 1924.
(1)	(2)	(3)	(4)	(5)	(6)
THIRD CIRCLE.					
South Cuddapah ..	Planting	23·00	..	3·00	20·00
Nellore	....	1,729·95	5·65	100·00	1,635·60
Chittoor	....	502·41	402·46	..	904·87
North Vellore	Planting Palamary, 1893, Ambur Tope, 1913, and Pichanur tope, year not known.	167·00	..	..	167·00
Total ..		2,422·36	408·11	103·00	2,727·47
FOURTH CIRCLE.					
South Vellore—					
Amerdi Plantation ..	Clear felling and artificially stocking with timber species, 1912–13.	87·25	..	..	87·25
Muttakadu Plantation	Clear felling and artificially stocking with timber species, 1921–22.	5·00	..	..	5·00
	Total ..	92·25	..	..	92·25
Central Salem—					
Jalluthu Fuel Coup VI.	(1) Sowing, (2) Not known.	20	..	20	..
Pudupatti bungalow compound.	(1) Planting fruit bearing trees, (2) Not known.	..	..	..	..
Pannikaradu Reserved Forest.	(1) Sowing, (2) 1922–23 ..	.. *	..	..	..
Shevaroys North and Kavaramalai Working Circles.	(1) Sowing, (2) Not known.	153	..	153	..
Mallapuram Reserved Forest.	(1) Do. (2) Do.	15	..	15	..
Karuvattuparai Reserved Forest.	(1) Do. (2) 1922–23 ..	4·33	..	4·33	..
Kapputhu Reserved Forest and coupes.	(1) Do (2) 1921–22 ..	119	37	156	..
Kavaramalai Coupes I, II and VI.	(1) Do. (2) Not known.	168	20	188	..
Kavaramalai Extension I to VIII.	(1) Do. (2) Do.	301	22	323	..
Northenchedu	(1) Do. (2) 1922–23 ..	20	18	38	..
Do. Extension.	(1) Do. (2) 1923–24 ..	..	16	16	..
Bodakad	(1) Do. (2) Not known.	2	..	2	..
Mallapuram Ghat Extension.	(1) Do. (2) Do.	2	10	12	..
Kuttar Reserved Forest and Coupes I and II.	(1) Do. (2) Do.	459	195	654	..
Ajjampatti Coupes V and VI.	(1) Do. (2) Do.	125	166	291	..
Vaniyar Reserved Forest.	(1) Do. (2) Do.	272	43	315	..
Bondikal	(1) Do. (2) Do.	100	..	100	..
Elathur	(1) Do. (2) Do.	5	..	5	..
Papireddipatti Rest-house compound.	(1) Do. (2) Do.	3	..	3	..

* One and-a-half measures of red Sanders sown.

during the forest year 1923-24—*cont.*

Expenditure total during year.		Expenditure from commencement.			Total area written off from start.	Expenditure in failed areas.	Expenditure from commencement excluding failed areas.	Revenue during the year.	Total revenue from date of creation.
Creation. (7)	Upkeep. (8)	Creation. (9)	Upkeep. (10)	Total. (11)	(12)	(13)	(14)	(15)	(16)
RS.	RS.	RS.	RS.	RS	ACS.	RS.	RS.	RS.	RS.
..	120	23	1,225	1,248		3	1,245	5,573	12,446
..		1,12,753	..	1,12,753	593	..	1,12,753	39,622	2,56,168
235	613	1,539	13,849	15,388	..	..	15,388	Not known.	
..	153	..	2,989	2,989	..	..	2,989	172	1,809
235	886	1,14,315	18,063	1,32,378	593	3	1,32,375	45,367	2,70,423
..	36	3,102	1,785	4,887	..	..	4,887	137	6,795
..	16	28	16	44	..	..	44	..	40
..	52	3,130	1,801	4,931	..	..	4,931	137	6,835
..	..	90	..	90	20	..	90	..	..
..	..	8	..	8	..	..	8	..	..
..	..	..	..	..	..	..	..	..	..
..	..	163	..	163	153	..	163	..	..
..	..	9	16	25	15	..	25	..	..
..	..	31	..	31	4·33	..	31	..	..
3	..	73	..	73	156	2	71	..	..
..	..	14	5	19	188	..	19	..	..
..	..	9	..	9	323	..	9	..	..
3	..	5	..	5	38	2	3	..	..
..	..	..	..	..	16	..	..	..	..
..	..	1	4	5	2	..	5	..	..
5	..	7	4	11	12	5	6	..	..
5	..	64	151	215	654	5	210	..	..
..	..	..	..	..	291	..	..	..	..
5	..	108	244	352	315	5	347	..	..
..	..	5	..	5	100	..	5	..	..
..	..	39	..	39	5	..	39	..	..
..	..	18	27	45	3	..	45	..	..

Plantations not under working-plans

Division and forest.	Method of formation and year of commencement.	Area in acres.			
		At commencement of year, 1st April 1923.	Added during year, 1st April 1923 to 31st March 1924.	Excluded during year, 1st April 1923 to 31st March 1924.	On 31st March 1924.
(1)	(2)	(3)	(4)	(5)	(6)
FOURTH CIRCLE—*cont.*					
Central Salem—*cont.*					
Kombuthuki Rest-house compound	(1) Sowing (2) Not known.	1	..	1	..
Mallapuram Rest-house compound.	(1) Do. (2) Do.	3	..	3	..
Papireddipatti Range office compound.	(1) Do. (2) 1923-24 ..	..	1·50	1·50	..
Shevaroys Range office compound.	(1) Do. (2) Do. ..	..	1·50	1 50	..
Cauvery Range office compound.	(1) Do. (2) Do. ..	..	1	1	..
Mallur Reserved Forest.	(1) Do. (2) Not known.	25	..	25	..
Bodamalai	(1) Do. (2) Do	51	9	60	..
Pudupatti Reserved Forest and Coupes XIV and XV.	(1) Do. (2) Do	341	58	399	..
Nagaramalai	(1) Do. (2) Do.	20	..	20	..
Manjavadi Ghat ..	(1) Do. (2) Do.	100	40	140	..
Tirumannur Reserved Forest and Fuel Coupe X.	(1) Do. (2) 1922-23 ..	8	15	23	..
Arasankadai Reserved Forest.	(1) Do. (2) 1923-24 ..	..	20	20	..
Kurumbapatti	(1) Do. (2) 1920-21 ..	5	..	3·25	1·75
Ayyanthirumaligai ..	(1) Do. (2) 1923-24 ..	..	..	..	..
Mookanur A	(1) Do. (2) Do. ..	..	(a) 17	17	..
Total ..	....	2,322 33	690	3,010·58	1·75
Grand total ..	....	2,414·58	690	3,010·58	94
FIFTH CIRCLE.					
Kollegal—					
Araipalayam Coupe XVI.	Sowing broadcast seeds of kolukattai grass, 1923-24.	..	..	..	..
Coimbatore, North—					
Minchigully plantation.	Dibbling teak, Vengai and Rosewood seeds, watering and weeding, 1918.	164	..	..	164
Ainagiri plantation ..	Planting seedlings, etc., of Sholas, species, 1918.	42	..	..	42
Madura—					
Gundan Shola	....	257	..	..	257
Pine plantations, Pambar Hill.	1906	1,044	..	..	1,044
Gundan Valley ..	Planting Acacia Decurrens.	148	..	..	148
Velancombai plantation.	....	14	..	..	14
Vannathiparai Teak plantation.	Planting teak, 1870 ..	3	..	..	3
Sethuvoikal or Vannathiparai new plantation.	Planting teak, 1920-21 ..	61	..	..	61

(*a*) Conservator's Bungalow compound.

during the forest year 1923-24—*cont.*

Expenditure total during year.		Expenditure from commencement.			Total area written off from start.	Expenditure in failed areas.	Expenditure from commencement excluding failed areas.	Revenue during the year.	Total revenue from date of creation.
Creation.	Upkeep.	Creation.	Upkeep.	Total.					
(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rs.	Rs.	Rs.	Rs.	Rs.	Acs	Rs.	Rs.	Rs.	Rs.
..	..	..	..	..	1	..	..	..	..
..	..	..	..	..	3	..	..	..	..
15	..	15	..	15	1·50	15	..	..	..
7	..	7	..	7	·50	7	..	..	..
8	..	8	..	8	1	8	..	..	..
..	..	3	6	9	25	..	9	..	..
..	..	12	31	43	60	..	43	..	..
..	..	8	..	8	399	..	8	..	..
..	..	5	..	5	20	..	5	..	..
5	..	24	9	33	140	5	28	..	..
..	..	45	..	45	23	..	45	..	..
5	..	5	..	5	20	5	..	..	..
..	34	202	34	236	3·25	..	2 6	..	..
131	..	131	..	131	..	..	131	..	..
..	..	..	..	..	17	..	..	..	..
192	34	1,109	531	1,640	3,0 0·.8	59	1,581	..	..
192	86	4,239	2,332	6,571	3,010·58	59	6,512	137	6,835
21	..	21	..	21	..	21	..	..	..
..	111	123	568	691	..	..	691	..	..
..	151	670	438	1,108	..	..	1,108	..	..
..	..	18,985	..	18,985	..	..	18,985	522	4,078
..	2	33,241	3,873	37,114	..	..	37,114	25	782
..	..	3,090	45	3,135	..	..	3,135	..	..
..	28	1,124	78	1,202	..	..	1,202	..	2,315
..	..	1,405	..	1,405	..	..	1,405	325	2,125
..	183	3,770	596	4,866	..	..	4,366	..	..

Plantations not under working-plans

Division and forest.	Method of formation and year of commencement.	Area in acres.			
		At commencement of year, 1st April 1923.	Added during year, 1st April 1923 to 31st March 1924.	Excluded during year, 1st April 1923 to 31st March 1924.	On 31st March 1924.
(1)	(2)	(3)	(4)	(5)	(6)
FIFTH CIRCLE—*cont.*					
Tinnevelly—					
Kudiramoliteri Reserve.	Dibbling palmyra, etc., seeds and planting various species.	5,228	..	..	5,228
Valliyur Reserved Forest.	1905	108	..	..	108
Kodamady Teak plantation.	Planting, 1917	57	29	..	86
Kariar Teak plantation.	Planting, 1922–23 ..	29	26	..	55
Richmond plantation ..	Planting teak raised in nursery, 1906.	1	..	..	1
Kariar kani area ..	Taungya plantation, 1 12.	23	..	..	23
Haynes plantation ..	....	23	..	..	23
Total ..	....	7,202	55	..	7,257
SIXTH CIRCLE.					
Mangalore, North—					
Someshwar	Sowing by cutting lines and staking.	178	..	19	159
Jattukattumala ..	Do. do.	1,295	..	..	1,295
Halesomeshwar ..	Do. do.	524	535	24	1,035
Mensinkam	Do. do.	46	..	34	12
Todar	Sandal sowing in pits ..	68	2	..	70
Hosabettu	Do. do. ..	76	2	..	78
Kodiamale	Sowing in pits	31	1	..	32
Sabladi	Sowing by cutting lines and staoking.	..	..	..	..
Total ..	....	2,218	540	77	2,681
Mangalore, South—					
Parappa, Compartment V.	Planting of teak 1865 ..	52	..	..	52
Porkala and Padnur ..	Sowing and planting of evergreen species under existing growth, 1920-21.	1,509	..	156	1,353
Parappa	Do. do.	1,747	336	275	1,808
Jalsur East, Coupes 1 and 2.	Artificial regeneration. Sowing and planting of evergreen species under existing growth, 1920-21.	252	..	..	252
....	Natural regeneration of evergreen species, 1916–17.	147	..	..	147
Nerankimale Reserve ..	Clear felling and sowing seeds of deciduous species in pits, 1923–24.	..	32	..	32
Nalkur	Natural regeneration of evergreen forests, January 1922.	1,021	1,220	..	2,241
Karadka	Taungya kumri, 1920–21.	57		57	..
Total ..	....	4,785	1,588	488	5,885

during the forest year 1923–24—*cont.*

Expenditure total during year.		Expenditure from commencement.			Total area written off from start.	Expenditure in failed areas.	Expenditure from commencement excluding failed areas.	Revenue during the year.	Total revenue from date of creation.
Creation. (7)	Upkeep. (8)	Creation. (9)	Upkeep. (10)	Total. (11)	(12)	(13)	(14)	(15)	(16)
Rs.	Rs.	Rs.	Rs.	Rs.	Acs.	Rs.	Rs.	Rs.	Rs.
..	..	6,130	1,830	7,960	..	..	7,960	4,424	(a) 36,696
..	..	269	1,357	1,626	..	..	1,626	21	940
1,016	262	3,739	499	4,238	..	..	4,238	..	8
486	254	1,173	254	1,427	..	..	1,427	..	..
..	..	5	..	5	..	..	5	..	94
..	15	47	252	299	..	..	299	178	178
..	..	26	37	63	..	..	63	..	..
1,523	956	73,818	9,827	83,645	..	21	83,624	5,495	47,216
..	119	517	599	1,116	19	108	1,008	..	..
..	1,419	3,122	3,114	6,236	..	..	6,236	..	..
677	294	1,532	294	1,826	24	39	1,787	..	..
..	..	13	..	13	34	10	3	..	..
..	..	324	..	324	204	231	93	..	..
..	..	358	..	358	* 165	235	123	..	..
..	..	64	14	78	..	..	78	..	..
* 311	..	311	..	311	..	..	311		..
988	1,832	6,241	4,021	10,262	446	623	9,639	..	..
..	35	10,357	209	10,566	..	..	10,556	..	2,508
..	1,339	3,736	1,927	5,663	156	821	4,842	..	..
962	1,302	4,821	2,351	7,172	275	1,021	6,151	..	..
..	706	1,541	1,228	2,769	..	..	2,769	..	..
..	135	289	3,925	4,214	..	..	4,214	..	..
99	..	99	..	99	..	..	99	..	..
..	1,835	..	5,223	5,223	..	..	5,223	..	..
..	..	37	75	112	57	112	..	..	..
1,061	5,352	20,880	14,938	35,818	488	1,954	33,864	..	2,508

(a) Revenue realized partly from trees that were already existing and partly from palmyra trees that were raised.

* The area to be sown is 100 acres. Only pitting and stacking has been done. Sowing will be done in June 1924.

Plantations not under working-plans

Division and forest.	Method of formation and year of commencement.	Area in acres.			
		At commencement of year, 1st April 1923.	Added during year, 1st April 1923 to 31st March 1924.	Excluded during year, 1st April 1923 to 31st March 1924.	On 31st March 1924.
(1)	(2)	(3)	(4)	(5)	(6)
SIXTH CIRCLE—*cont.*					
Wynaad—					
....	Regular plantation ..	372	185	..	557
....	Taungya	669	..	..	669
Bhoothakkal	Clear felling and regeneration by dibbling and planting.	13	25	..	38
Doddapallam	Do. do.	..	35	..	35
Total ..	....	1,054	245	..	1,299
Palghat—					
Thamburattipottai reserve.	Taungya plantations, 1919-20.	34	..	..	34
Puliyampatti tope reserve.	Do. do.	20	..	..	20
Thamburattipottai reserve.	Cultural operations, 1918-19.	17	..	..	17
Vellapathi reserve ..	Cultural operations, 1919-20.	39	..	..	39
Muthikulam bungalow compound.	Cultural operations, 1921-22.	4	..	..	4
Attapadi	Do. do. ..	2	..	..	2
Palghat Range Office compound.	Cultural operations, 1919-20.	1	..	..	1
Dhoni reserve	Do. do.	125	..	..	125
Chenat Nair	Cultural operations, 1920-21.	372	321	..	493
Elival tope	Tending coppice shoots ..	..	..	..	..
Total ..	....	614	121	..	735
The Nilgiris—					
....	Regular plantations, 1856.	1,867	16	..	1,883
....	Taungya plantations, 1907-08.	32	..	..	32
....	Cultural operations, 1920-21.	47	27	..	74
Mudumalai, Compartment I, Block I.	Clear felling and planting of teak stumps, 1923-24.	..	100	..	100
Moyar	Do. do.	..	..	..	..
Total ..	....	1,946	143	..	2,089
Grand total for the circle.	....	10,617	2,637	565	12,689
Grand total, Presidency ..	....	9,818·44	4,586·11	10,141·58	31,259·97

during the forest year 1923–24—*cont.*

Expenditure total during year.		Expenditure from commencement.			Total area written off from start.	Expenditure in failed areas.	Expenditure from commencement excluding failed areas.	Revenue during the year.	Total revenue from date of creation.
Creation. (7)	Upkeep. (8)	Creation. (9)	Upkeep. (10)	Total. (11)	(12)	(13)	(14)	(15)	(16)
RS.	RS.	RS.	RS.	RS.	ACS.	RS.	RS.	RS.	RS
1,352	(*b*) 1,115	17,561	25,131	42,692	..	..	42,692	3,497	19,593
(*a*) 81	..	25	11,084	11,109	..	.	11,109		
1,206	176	2,065	176	2,241	..	..	2,241	..	..
616	309	1,905	309	2,214	..	..	2,214	..	..
3,255	1,600	21,556	36,700	58,256	..	..	58,256	3,497	19,593
..	48	..	133	133	..	..	133	..	..
..	99	..	249	249	..	..	249	..	..
..	..	112	..	112	..	..	112	..	..
..	28	573	59	632	..	..	632	..	..
..	..	110	..	110	..	..	110	..	..
..	..	13	..	13	..	..	13	..	..
..	7	50	42	92	..	..	92	..	..
..	21	2,794	1,456	4,250	..	..	4,250	..	..
2,718	..	9,104	151	9,255	..	..	9,255	..	..
..	26	..	35	35	..	..	35	..	..
2,718	229	12,756	2,125	14,881	..	..	14,881	..	..
1,272	2,204	14,501	3,20,298	3,34,799	..	..	3,34,799	13,946	9,36,728
..	41	104	5,019	5,523	..	..	5,523	..	..
..	498	1,700	878	2,578	..	..	2,578	..	..
509	..	..	509	1,130	..	..	1,130	..	..
(*c*) 225			(*c*) 621						
(*d*) 101	..	101	..	101	..	..	101	..	..
2,107	2,743	15,806	3,27,325	3,44,131	..	..	3,44,131	13,946	9,36,728
10,129	11,756	78,239	3,85,109	4,63,348	934	2,577	4,60,771	17,443	9,58,829
27,593	18,919	6,84,927	5,87,270	12,72,197	10,984·58	86,318	11,47,716	83,480	1,36,658

(*a*) Rs. 55 cost of seeds sent to Palghat and Nilambur, and 26 nursery cost (Begur).

(*b*) Includes Rs. 137 spent on tending Neduthana orange tope. Its area is not shown in column 3 as it is not a regular plantation from the Forest points of view.

(*c*) Includes previous expenditure on nursery.

(*d*) Expenditure on nursery.

Annual Form No. 76.

Forest Department, Madras Presidency.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1923-24 and agency of exploitation.

Division.	Timber in the rough, logs.					Timber in the rough, poles.					Sawn or square timber.				
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
First Circle.															
I. Reserved Forests.															
Ganjam	247	46	39	9	341	12	128	..	..	140	..	..	..	..	..
Vizagapatam	1	1	..	..	2	..	5	..	..	5	..	..	..	..	..
Gōdāvari, Upper ..	43	2	..	..	45	1	..	..	..	1	..	..	..	..	..
Do. Lower ..	7	130	..	..	137	..	..	..	..	..	..	7	..	..	7
Kistna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	298	179	99	9	525	13	133	..	..	146	..	7	..	..	7
II. Leased Forests—Nil.															
III. Reserved Lands—Nil.															
IV. Unreserved Lands.															
Ganjam	28	24	1	..	53	1	3	..	..	4	..	..	..	..	..
Vizagapatam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gōdāvari, Upper ..	8	2	1	..	11	1	11	..	..	12	..	..	..	..	..
Do. Lower ..	2	67	49	..	118	..	..	..	..	..	..	1	..	..	1
Kistna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	38	93	51	..	182	2	14	..	..	16	..	1	..	..	1
Grand total ..	336	272	90	9	707	15	147	..	..	162	..	8	..	..	8

Note for the First Circle.

The figures are actuals except in the following cases :—

(1) *Ganjām*—Unreserved lands—Column 3.—This includes 4,000 cubic feet of timber arrived at by taking 20 cubic feet for every rupee collected.

Column 28.—This includes 21,000 cubic feet arrived at by taking 20 cubic feet for every half rupee collected.

(2) *Vizagapatam*—Unreserved lands.—Value converted into outturn at 1 anna per cubic foot of timber and 6 pies per cubic foot of fuel.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1923-24 and agency of exploitation—cont.

Division.	Miscellaneous.					Total timber.					Fuel.					Total outturn.
	Government. (17)	Purchasers. (18)	Free-grantees. (19)	Right-holders. (20)	Total. (21)	Government. (22)	Purchasers. (23)	Free-grantees. (24)	Right-holders. (25)	Total. (26)	Government. (27)	Purchasers. (28)	Free-grantees. (29)	Right-holders. (30)	Total. (31)	(32)
FIRST CIRCLE—*cont.*																
I. Reserved Forests—cont.																
Ganjam	..	..	..	..	..	259	174	39	9	481	310	421	48	..	779	1,260
Vizagapatam	..	..	..	..	..	1	6	..	..	7	3	171	..	..	174	181
Godavari, Upper ..	27	..	..	..	27	71	2	..	..	73	..	17	..	..	17	90
Do. Lower ..	..	..	..	..	..	7	137	..	..	144	15	881	..	..	896	1,040
Kistna	..	1	..	..	1	..	1	..	..	1	..	852	..	..	852	853
Total ..	27	1	..	..	28	338	320	39	9	706	328	2,342	48	..	2,718	3,424
II. Leased Forests—Nil.																
III. Reserved Lands—Nil.																
IV. Unreserved Lands—																
Ganjam	..	..	..	..	..	29	27	1	..	57	1	147	1	..	149	206
Vizagapatam	..	40	22	..	62	..	40	22	..	62	..	35	..	..	35	97
Godavari, Upper ..	3	19	13	..	35	12	32	14	..	58	5	67	..	..	72	130
Do. Lower ..	..	..	..	..	..	2	68	49	..	119	1	3	..	..	4	123
Kistna	..	51	14	..	65	..	51	14	..	65	..	160	..	..	160	225
Total ..	3	110	49	..	162	43	218	100	..	361	7	412	1	..	420	781
Grand total ..	30	111	49	..	190	381	538	139	9	1,067	335	2,754	49	..	3,138	4,205

(3) *Godavari, Lower*—Unreserved lands—Column 3.—This includes 52 units of timber obtained by conversion of lease amount under driftwood operations at 1 anna per cubic foot.

(4) *Kistna*—Unreserved lands.—Value converted into outturn at 1 anna per cubic foot and 2 annas per cubic foot in the case of free grantees.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1923-24 and agency of exploitation—*cont.*

Division.	Timber in the rough, logs.					Timber in the rough, poles.					Sawn or square timber.				
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
SECOND CIRCLE.															
I. Reserved Forests.															
Bellary	..	..	..	..	..	..	16	1	..	17	..	..	..	..	..
Anantapur	..	3	6	..	9	..	..	..	..	..	..	..	..	..	..
Guntur	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kurnool, East	14	3	1	..	18	1	1	1	..	3	..	..	..	..	..
Do. South ..	11	15	..	..	26	1	52	3	..	56	..	1	..	..	1
Do. West ..	7	..	..	..	7	58	..	8	1	67	3	..	..	..	3
Total ..	32	21	7	..	60	60	69	13	1	143	3	1	..	..	4
II. Leased Forests—Nil.															
III. Reserved Lands—Nil.															
IV. Unreserved Lands.															
Bellary	..	..	..	..	..	..	29	..	..	29	..	..	..	..	..
Anantapur	..	96	..	..	96	..	..	..	..	..	..	..	..	..	..
Guntur	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kurnool, East	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South ..	..	10	..	..	10	..	..	..	..	..	..	..	..	..	..
Do. West ..	..	155	..	..	155	..	..	..	..	..	..	..	..	..	..
Total ..	..	261	..	..	261	..	29	..	..	29	..	..	..	..	..
Grand total ..	32	282	7	..	321	60	98	13	1	172	3	1	..	..	4

Reserved Forests—

NOTE.—*Bellary*—Estimates at 4 annas a cubic foot for I class timber and 2 annas per cubic foot for II class timber.
Do. at 20 cubic feet for 6 annas on the revenue realized.
Anantapur.—Estimates at 2 annas a cubic foot for timber. Estimates at 1 anna a cubic foot for fuel.

Unreserved lands—

Guntūr—Timber fee grants actuals timber and fuel by purchasers estimated at 1 anna per cubic foot.
Kurnool, East—Free grants actuals 1 palmyra tree = 10 cubic feet 1 C.L. timber and fuel = 20 cubic feet.
Kurnool, South and West.—One C.L. timber and fuel = 20 cubic feet.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1923–24 and agency of exploitation—cont.

Division.	Miscellaneous.					Total timber.					Fuel.					Total outturn.
	Government. (17)	Purchasers. (18)	Free-grantees. (19)	Right-holders. (20)	Total. (21)	Government. (22)	Purchasers. (23)	Free-grantees. (24)	Right-holders. (25)	Total. (26)	Government. (27)	Purchasers. (28)	Free-grantees. (29)	Right-holders. (30)	Total. (31)	(32)
SECOND CIRCLE.																
I. Reserved Forests.																
Bellary	..	..	..	..	..	..	16	1	..	17	2	299	..	..	301	* 318
Anantapur	..	..	..	..	..	..	3	6	..	9	..	56	..	..	56	65
Guntūr	1	37	..	..	38	1	37	..	..	38	..	184	..	..	184	222
Kurnool, East	..	..	..	..	..	15	4	2	..	21	10	2	..	..	12	33
Do. South ..	..	..	..	..	..	12	68	3	..	83	22	158	..	..	180	263
Do. West ..	..	9	..	..	9	68	9	8	1	86	120	..	..	154	274	360
Total ..	1	46	..	..	47	96	137	20	1	254	154	699	..	154	1,007	1,261
II. Leased Forests—Nil.																
III. Reserved Lands—Nil																
IV. Unreserved Lands.																
Bellary	..	..	..	..	..	..	29	..	..	29	..	74	..	..	74	† 103
Anantapur	..	..	..	..	..	..	96	..	..	96	..	68	..	..	68	164
Guntūr	..	228	52	..	280	..	228	52	..	280	..	336	..	..	336	616
Kurnool, East	..	27	12	..	39	..	27	12	..	39	..	3	..	..	3	42
Do. South ..	..	50	..	..	50	..	60	..	..	60	..	31	..	..	31	91
Do. West ..	..	..	..	..	..	..	155	..	..	155	..	62	..	..	62	217
Total ..	..	305	64	..	369	..	595	64	..	659	..	574	..	..	574	1,233
Grand total ..	1	351	64	..	416	96	732	84	1	913	154	1,273	..	154	1,581	2,494

* Actuals. † Estimates.

Reserved Forests—

NOTE.—*Bellary.*—Estimates at 4 annas a cubic foot for I class timber and 2 annas per cubic foot for II class timber.
Do. at 20 cubic feet for 6 annas on the revenue realized.

Anantapur.—Estimates at 2 annas a cubic foot for timber. Estimates at 1 anna a cubic foot for fuel.

Unreserved lands—

Guntur.—Timber free grants actuals timber and fuel by purchasers estimated at 1 anna per cubic foot.

Kurnool, East.—Free grants actuals 1 palmyra tree = 10 cubic feet 1 C.L. timber and fuel = 20 cubic feet.

Kurnool, South and West.—One C.L. timber and fuel = 20 cubic feet.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1923-24 and agency of exploitation—*cont.*

Division	Timber in the rough, logs.					Timber in the rough, poles.					Sawn or square timber.				
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
THIRD CIRCLE.															
I. Reserved Forests.															
Cuddapah, North ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South ..	1	..	..	..	1	1	..	..	..	1	1	..	..	..	1
Do. West ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nellore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chingleput	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chittoor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
North Vellore	..	9	..	..	9	..	..	..	..	..	..	..	..	..	..
Total ..	1	9	..	..	10	1	..	..	..	1	1	..	..	..	1
II. Leased Forests—Nil.															
III. Reserved Lands—Nil.															
IV. Unreserved Lands.															
Cuddapah, North ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. West ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nellore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chingleput	..	120	..	..	120	..	..	..	..	..	..	..	..	..	..
Chittoor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
North Vellore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	..	120	..	..	120	..	..	..	..	..	..	..	..	..	..
Grand total ..	1	129	..	..	130	1	..	..	..	1	1	..	..	..	1

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1923–24 and agency of exploitation—*cont.*

Division.	Miscellaneous.					Total timber.					Fuel.					Total outturn.
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total	
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
THIRD CIRCLE—*cont.*																
I. Reserved Forests—cont.																
Cuddapah, North ..	1	25	7	..	33	1	25	7	..	33	13	735	..	..	748	(a) 781
Do. South ..	5	49	1	..	55	8	49	1	..	58	26	953	..	..	979	(a) 1,037
Do. West ..	3	14	1	..	18	3	14	1	..	18	1	425	..	..	426	(a) 444
Nellore	1	2	1	..	4	1	2	1	..	4	27	2,145	..	..	2,172	(a) 2,176
Chingleput	..	..	..	..	..	..	..	..	..	..	..	285	..	..	285	(a) 285
Chittoor	1	20	1	..	22	1	20	1	..	22	25	1,349	..	..	1,374	(a) 1,396
North Vellore	..	..	..	..	..	..	9	..	..	9	3	300	..	..	303	(a) 312
Total ..	11	110	11	..	132	14	119	11	..	144	95	6,192	..	..	6,287	6,431
II. Leased Forests—Nil.																
III. Reserved Lands—Nil.																
IV. Unreserved Lands.																
Cuddapah, North ..	..	75	..	..	75	..	75	..	..	75	..	77	..	..	77	(a) 152
Do. South ..	..	1	..	..	1	..	1	..	..	1	..	3	..	..	3	(a) 4
Do. West ..	..	59	..	..	59	..	59	..	..	59	..	208	..	..	208	(b) 267
Nellore	..	31	19	..	50	..	31	19	..	50	..	34	..	..	34	(d) 84
Chingleput	..	..	4	..	4	..	120	4	..	124	..	255	..	..	255	(b) 379
Chittoor	..	144	11	..	155	..	144	11	..	155	..	305	..	..	305	(b) 460
North Vellore	..	161	10	..	171	..	161	10	..	171	..	88	..	..	88	(c) 259
Total ..	..	471	44	..	515	..	591	44	..	635	..	970	..	..	970	1,605
Grand total ..	11	581	55	..	647	14	710	55	..	779	95	7,162	..	..	7,257	8,036

(*a*) Actuals.

(*b*) Converted from money value at 1 anna per cubic foot in case of timber and 3 pies per cubic foot in case of fuel.

(*c*) Converted from money value at 1 anna per cubic foot in case of timber and 2 annas per cubic foot, fuel 1 anna per cubic foot and one palm tree =25 cubic feet

(*d*) Converted from money value at 1 anna per cubic foot in case of timber, 3 annas per cubic foot and fuel 1 anna per cubic foot.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1923-24 and agency of exploitation—*cont.*

Division.	Timber in the rough, logs.					Timber in the rough, poles.					Sawn or square timber.				
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
FOURTH CIRCLE.															
I. Reserved Forests.															
Vellore, South	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. West	..	4	1	..	5	..	..	..	..	..	..	..	..	..	..
Salem, East	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. North	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. Central ..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..
Do. South	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	..	4	1	..	5	..	1	..	..	1	..	..	..	..	..
II. Leased Forests—Nil.															
III. Reserved Lands—Nil.															
IV. Unreserved Lands.															
Vellore, South.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. West.. ..	..	11	4	..	15	..	..	..	..	..	..	..	..	..	..
Salem, East	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. North.. ..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Do. Central ..	..	..	..	..	..	..	9	5	..	14	..	..	..	..	..
Do. South	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	..	11	4	..	15	..	9	5	..	14	1	..	..	..	1
Grand total ..	..	15	5	..	20	..	10	5	..	15	1	..	..	..	1

Removals by Government Agency—Actuals.

Free grants—Actuals.

Sandalwood—Factor of conversion 1 ton = 40 cubic feet.

Purchasers—Timber and fuel—Estimate based on money value collected.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1923-24 and agency of exploitation—cont.

Division.	Miscellaneous.					Total timber.					Fuel.					Total outturn.
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
FOURTH CIRCLE—*cont.*																
I. Reserved Forests.																
Vellore, South	3	2	1	..	6	3	2	1	..	6	3	247	..	..	250	256
Do. West	2	..	..	..	2	2	4	1	..	7	..	68	..	..	68	75
Salem, East	..	..	..	..	..	..	..	..	..	..	..	79	..	..	79	79
Do. North ..	11	..	..	..	11	11	..	..	..	11	1	16	..	..	17	28
Do. Central ..	1	..	..	..	1	1	1	..	..	2	..	90	..	..	90	92
Do. South	1	1	1	..	3	1	1	1	..	3	4	205	..	..	209	212
Total ..	18	3	2	..	23	18	8	3	..	29	8	705	..	..	713	742
II. Leased Forests—Nil.																
III. Reserved Lands—Nil.																
IV. Unreserved Lands.																
Vellore, South	..	94	21	..	115	..	94	21	..	115	..	67	..	..	67	182
Do. West	..	..	..	..	..	..	11	4	..	15	..	6	..	..	6	21
Salem, East	..	95	1	..	96	..	95	1	..	96	..	62	1	..	63	159
Do. North	..	29	..	..	29	1	29	..	..	30	1	6	..	..	7	37
Do. Central	..	72	..	..	72	..	81	5	..	86	..	12	..	..	12	98
Do. South	..	261	2	..	263	..	261	2	..	263	..	308	..	..	308	571
Total ..	..	551	24	..	575	1	571	33	..	605	1	461	1	..	463	1,068
Grand total ..	18	554	26	..	598	19	579	36	..	634	9	1,166	1	..	1,176	1,810

Removals by Government Agency—Actuals.

Free grants—Actuals.

Sandalwood—Factor of conversion 1 ton = 40 cubic feet.

Purchasers—Timber and fuel—Estimate based on money value collected.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1923-24 and agency of exploitation—*cont.*

Division.	Timber in the rough, logs.					Timber in the rough, poles.					Sawn or square timber.				
	Government.	Purchasers.	Free-grantees.	Right-holders	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government	Purchasers.	Free-grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Fifth Circle.															
I. Reserved Forests.															
Kollegal	4	1	..	..	5	..	1	..	..	1	..	2	..	..	2
Coimbatore, North ..	..	12	..	..	12	..	..	..	..	..	15	..	..	..	15
Do. South ..	3	..	..	..	3	..	..	..	..	..	18	..	..	..	18
Madura	6	..	..	..	6	..	..	..	..	..	..	..	.	..	..
Tinnevelly	..	27	..	..	27	..	17	..	..	17	..	7	..	..	7
Total ..	13	40	..	..	53	..	18	..	..	18	33	9	..	..	42
II. Leased Forests.															
Coimbatore, South ..	116	..	..	..	116	..	..	..	..	..	..	..	..	..	..
III. Reserved Lands—Nil.															
IV. Unreserved Lands.															
Kollegal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coimbatore, North ..	..	108	7	..	115	..	..	..	..	..	..	..	..	..	..
Madura	..	..	..	..	..	..	..	..	..	..	..	..		..	..
Tinnevelly	..	4	25	..	29	..	..	..	..	..	..	..	..	..	..
Total ..	..	112	32	..	144	..	..	..	..	..	..	..	..	..	..
Grand total ..	129	152	32	..	313	..	18	..	..	18	33	9	..	..	42

Note for the Fifth Circle.

The figures are actuals except in the following cases:—

Kollegal and Coimbatore, North.—Sandalwood—Factor of conversion—2 qrs. = 1 cubic foot.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1923–24 and agency of exploitation—cont.

Division.	Miscellaneous.					Total timber.					Fuel.					Total outturn.
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
FIFTH CIRCLE—*cont.*																
I. Reserved Forests—cont.																
Kollegal	..	5	..	..	5	4	9	..	..	13	..	230	..	..	230	243
Coimbatore, North ..	..	5	..	..	5	16	17	..	..	32	..	944	..	..	944	976
Do. South ..	4	2	..	..	6	25	2	..	..	27	..	75	..	..	75	102
Madura	..	11	..	..	11	6	11	..	..	17	2	596	..	..	598	615
Tinnevelly	..	6	..	..	6	..	57	..	..	57	..	757	..	..	757	814
Total ..	4	29	..	..	33	50	96	..	..	146	2	2,602	..	..	2,604	2,750
II. Leased Forests.																
Coimbatore, South ..	1	..	..	..	1	117	..	..	..	117	..	..	..	..	..	117
III. Reserved Lands—Nil.																
IV. Unreserved Lands.																
Kollegal	..	11	..	..	11	..	11	..	..	11	..	13	..	..	13	24
Coimbatore, North ..	..	..	..	..	..	..	108	7	..	115	..	44	..	..	44	159
Madura	..	124	2	..	126	..	124	2	..	126	..	479	..	..	479	605
Tinnevelly	..	..	..	..	..	..	4	25	..	29	..	212	..	..	212	241
Total ..	..	135	2	..	137	..	247	34	..	281	..	748	..	..	748	1,029
Grand total ..	5	164	2	..	171	167	343	34	..	544	2	3,350	..	..	3,352	3,896

Note for the Fifth Circle—cont.

Kollegal and Coimbatore, North.—Agricultural implements—*Factor of conversion.*—Each implement = 1 cubic foot.
Unreserved Lands.—Estimate based on money value collected.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1923-24 and agency of exploitation—*cont.*

Division.	Timber in the rough, logs					Timber in the rough, poles.					Sawn or square timber.				
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
SIXTH CIRCLE															
I. Reserved forests.															
Mangalore, North ..	60	..	..	..	60	..	..	..	..	..	..	..	..	..	..
Do. South ..	35	2	..	..	37	..	..	..	..	..	4	..	..	..	4
Wynaad	6	..	..	..	6	8	..	..	..	8	80	14	..	..	94
Nilambur	77	55	..	..	132	14	..	..	..	14	..	..	..	..	..
The Nilgiris	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Palghat	10	20	..	..	30	..	..	..	..	..	..	..	..	..	..
Total ..	188	77	..	..	265	22	..	..	..	22	84	14	..	..	98
II. Leased Forests.															
Nilambur	143	32	..	..	175	59	..	..	..	59	..	..	..	..	..
III. Reserved Lands.															
The Nilgiris	41	..	..	..	41	7	..	..	..	7	..	..	..	..	..
IV. Unreserved Lands.															
Mangalore, North ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wynaad	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
The Nilgiris	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Palghat	..	28	..	..	23	..	..	..	..	..	..	..	..	..	..
Total ..	..	28	..	..	28	..	..	..	..	..	..	..	..	..	..
Grand total ..	372	137	..	..	509	88	..	..	..	88	84	14			98
Exploitation Division.	84	..	..	..	84	5	..	..	..	5	3	..	..	..	3
Grand total, Presidency.	954	987	134	9	2,084	169	273	18	1	461	125	32	..	..	157

Note for the Sixth Circle. *Reserved Forests, Leased Forests and Reserved Lands.* *Government Agency—Purchasers—Actuals.*
Unreserved Lands.—Estimates based on money value.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1923-24 and agency of exploitation—*cont.*

Division.	Miscellaneous.					Total timber.					Fuel.					Total outturn.
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government	Purchasers.	Free-grantees.	Right-holders.	Total.	
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
SIXTH CIRCLE—*cont.*																
I. Reserved Forests—cont.																
Mangalore, North ..	..	51	..	..	51	60	51	..	..	111	87	1,089	..	..	1,176	1,287
Do. South ..	..	2	..	..	2	39	4	..	..	43	121	252	..	..	373	416
Wynaad	..	2	..	..	2	94	16	..	..	110	..	..	..	..	..	110
Nilambur	..	..	..	..	..	91	55	..	..	146	..	..	..	..	..	146
The Nilgiris ..	..	13	..	..	13	..	13	..	..	13	515	93	..	..	608	621
Palghat	..	..	..	..	..	10	20		..	30	7	878	..	..	885	915
Total ..	..	68	..	..	68	294	159	.	..	453	730	2,312	..	..	3,042	3,495
II. Leased Forests—cont.																
Nilambur	..	4	..	..	4	202	36	..	..	238	2	..	..	..	2	240
III. Reserved Lands—cont.																
The Nilgiris	..	..	..	..	..	48	..	..	..	48	..	..	..	..	..	48
IV. Unreserved Lands—cont.																
Mangalore, North ...	..	99	..	23	122	..	99	..	23	122	..	994	..	..	994	1,116
Do. South ..	..	45	..	4	49	..	45	..	4	49	..	131	..	..	131	180
Wynaad	..	4	..	..	4	..	4	..	..	4	..	3	..	..	3	7
The Nilgiris ..	..	4	..	..	4	..	4	..	..	4	..	..	..	..	..	4
Palghat	..	..	1	..	1	..	28	1	..	29	..	11	..	..	11	40
Total ..	..	152	1	27	180	.	180	1	27	208	..	1,139	..	..	1,139	1,347
Grand total ..	..	224	1	27	252	544	375	1	27	947	732	3,451	..	..	4,188	5,130
Exploitation Division.	..	..	..	..	..	92	..	..	..	92	87	..	..	..	87	179
Grand total, Presidency.	65	1,985	197	27	2,274	1,313	3,277	349	37	4,976	1,414	19,156	50	154	20,774	25,750

Note for the Sixth Circle— *Reserved Forests, Leased Forests and Reserved Forests.* *Government Agency—Purchasers*—Actuals.
Unreserved Lands,—Estimates based on money value.

ANNUAL FORM No. 77.

Forest Department, Madras Presidency.

Outturn of minor forest produce during the year 1923-24.

Circle.	Description of produce.	Produce removed or utilized					
		By Government agency.		By purchasers.	By free grantees.	By right-holders	Total.
		Quantity.	Value.	Value.	Value.	Value.	Value.
	Reserved forests.	NO.	RS.	RS.	RS.	RS.	RS.
	Bamboos	47,168	671	89,620	748	143	91,182
	Grazing and fodder grass ..	..	..	47,098	12,593	706	60,397
	Other produce.	QRS.					
	Grass (hay, thatch, korai, etc.).	4,732	34	935	2	..	971
	Tamarind, soapnuts, galnuts, nux-vomica, shekoi, etc.	565	51	1,051	..	..	1,102
	Horns, boney wax, resin, gum, skins, etc.	..	..	157	..	..	157
	Tangedu, etc., barks and fibres.	69	21	1,441	..	..	1,462
	Stone, gravel, earth, etc. ..	27,540	43	430	..	..	473
	Date and palmyra leaves, stalks, etc.	73	2	41	..	..	43
	Miscellaneous, including tree-tapping and tree-owners' fees.	..	..	215	..	500	715
	Total, minor produce ..	32,979	151	4,270	2	500	4,923
	Total, Reserved forests ..	..	822	1,40,988	13,343	1,349	1,56,502
	Reserved lands.						
	Bamboos	700	22	35,382	..	..	35,404
	Other produce.						
	Grass (hay, thatch, korai, etc.)	..	..	104	..	..	104
	Tamarind, soapnuts, etc. ..	..	..	14,779	..	..	14,779
	Horns, honey, etc.	..	..	158	..	..	158
	Leaves for platters	..	..	508	..	..	508
	Manure leaves and thorns ..	..	..	14	..	..	14
	Total, minor produce ..	..	..	15,563	..	..	15,563
	Total, Reserved lands ..	700	22	50,945	..	..	50,967
	Unreserved lands.						
	Bamboos	10,230	193	6,616	156	..	6,965
	Grazing and fodder grass ..	..	..	6,874	..	..	6,874
	Other produce.	QRS.					
	Grass (tharbi, korai, etc.) ..	11,056	69	868	1	..	938
	Tamarind, soapnuts, galnuts, nux-vomica, shekoi, etc.	605	70	12,607	..	..	12,677
	Horns, honey, wax, gum, resin, skins, etc.	..	..	636	..	..	636
	Tangedu, etc., barks and fibres.	2	2	12,719	..	..	12,721
	Stone, gravel, earth, etc. ..	..	..	2,408	..	..	2,408
	Leaves for platters	..	..	35	..	..	35
	Date and palmyra leaves, stalks, etc.	..	..	85	267	..	352

First Circle.

Otturn of minor forest produce during the year 1923-24—*cont.*

Circle.	Description of produce.	Produce removed or utilized. By Government agency. Quantity.	By Government agency. Value.	By purchasers. Value.	By free grantees. Value.	By right-holders. Value.	Total. Value.
	Other produce—cont.	NO.	RS.	RS.	RS.	RS.	RS.
First Circle—*cont.*	Manure leaves and thorns ..	..	..	2	..	..	2
	Miscellaneous, including tree tapping and tree-owners' fees.	..	..	26,946	..	..	26,946
	Total, minor produce ..	11,663	141	56,306	268	..	56,715
	Total, Unreserved lands ..	..	334	69,796	424	..	70,554
	Abstract for the circle.						
	Bamboos	58,098	886	1,31,618	904	143	1,33,551
	Grazing and fodder grass ..	..	..	53,972	12,593	706	67,271
	Other produce in quarters ..	44,642	292	76,139	270	500	77,201
	Grand total, First Circle ..	..	1,178	2,61,729	13,767	1,349	2,78,023
Second Circle.	Bamboos	911,587	(*a*)18,737	30,559	233	..	49,529
	Grazing	..	..	2,40,741	8,716	4,014	2,53,471
	Fodder grass	..	..	4,239	..	..	4,239
	Panchayat fees	..	..	16,004	..	..	16,004
	Kancha fees	..	..	1,223	..	..	1,223
	Total ..	..	..	2,62,207	8,716	4,014	2,74,937
	Minor forest produce.						
	Grass (hay, thatch and grass) ..	..	..	6,055	75	..	6,130
	Tamarind, soapnuts and nux-vomica.	24,031	12,015	17,281	..	..	29,296
	Stone, gravel and earth ..	..	..	23,747	..	..	23,747
	Date, palmyra and platter leaves.	729	205	720	922	..	1,847
	Manure leaves and thorns ..	..	..	2,183	..	..	2,183
	Thumki leaves	..	..	39	..	..	39
	Honey, wax, resin, gum and galnuts	780	1,297	291	..	..	1,588
	Tangedu, Kela, Yepi, fibre and seeds.	277	71	78,428	..	..	78,499
	Miscellaneous including tree-tapping fees and amaroi.	55	252	1,02,230	140	..	1,02,622
	Total ..	25,872	(*b*)13,840	2,30,974	1,137	..	2,45,951
	Grand total ..	..	32,577	5,23,740	10,086	4,014	5,70,417
Third Circle.	Bamboos	8,594	288	30,759	338	..	31,385
	Grazing and fodder grass ..	..	..	2,29,576	..	144	2,29,720
		QRS. of 28 LB.					
	Grass (thatch, korai, etc.) ..	3,192	285	338	11	..	634
	Honey, wax, etc	..	..	1,806	..	..	1,806
	Tangedu, etc., barks	393	1,247	50,485	..	..	51,732
	Date and palmyra leaves ..	188	4	2,153	513	..	2,670
	Stones, gravel and earth ..	..	..	4,414	28	..	4,442
	Manure leaves, tooki and plate leaves, etc.	..	..	11,026	..	..	11,026
	Tamarind, soapnuts and nux-vomica.	10,342	4,225	45,989	..	..	50,214
	Other miscellaneous produce including tree-owners' fees.	1,232	3,110	49,676	..	..	52,786
	Total ..	15,347	8,871	1,65,887	552	..	1,75,310
	Total of grass and grazing and minor produce.	15,347	8,871	3,95,463	552	144	4,05,030

(*a*) Excludes the value of balance 8,841 bamboos pending disposal.
(*b*) Do. 2,736 quarters do.

Outturn of minor forest produce during the year 1923-24—*cont.*

Circle.	Description of produce.	Produce removed or utilized					
		By Government agency.		By purchasers.	By free grantees	By right-holders.	Total.
		Quantity.	Value.	Value.	Value	Value.	Value.
		NO	RS.	RS.	RS.	RS	RS.
South Circle.	Bamboos	2,795	23	99,708	63	..	99,794
	Grass and grazing	..	..	1,95,850	..	73	1,95,923
		QRS.					
	Grass (thatch, korai, etc.) ..	..	..	398	..	..	398
	Tamarind, soapnuts galnuts, nux-vomica, etc.	853	608	15,028	..	..	15,636
	Avaram, vembadam, etc., barks.	..	..	16,377	..	..	16,377
	Stone, gravel, earth, etc. ..	..	..	8,343	..	..	8,343
	Manure leaves, etc.	..	..	31,076	..	..	31,076
	Date, palmyra, etc., leaves ..	..	..	4	66	..	70
	Miscellaneous including tree-owners' fees.	304	294	40,125	42	..	40,461
	Total ..	1,157	902	1,11,351	108	..	1,12,361
	Grand total ..	..	925	4,06,909	171	73	4,08,078
	Reserved forest.	NO.					
	Bamboos	6,674	201	34,695	15	..	34,911
	Grazing	..	..	1,26,971	..	1,026	1,27,997
	Fodder grass	..	..	2,359	375	..	2,734
	Revenue from Panchayat forests.	..	..	4,182	..	..	4,182
	Total ..	..	..	1,33,512	375	1,026	1,34,913
	Other produce.	QRS.					
	Grass (thatch, korai, etc.) ..	1,600	50	2,128	..	..	2,178
	Dammer, turmeric, pepper, cardamoms, etc.	..	..	12,895	..	..	12,895
	Tamarind, soapnuts, galnuts, nux-vomica, shekoi, etc.	416	21	20,990	..	..	21,011
	Horns, honey, wax, gum, resin, skin, etc.	35	225	2,036	..	..	2,261
	Avaram, vembadam, etc., barks and fibres.	..	..	17,921	..	..	17,921
	Stones, earth, gravel, etc. ..	..	..	3,018	..	..	3,018
	Manure leaves, thorns, etc. ..	..	..	3,803	..	..	3,803
	Date and palmyra leaves ..	..	..	8,818	4	264	9,086
	Elephant tusk	13	2,762	..	..	..	2,762
	Miscellaneous	..	..	17,953	..	..	17,953
	Total ..	2,064	3,058	89,562	4	264	92,888
	Unreserved lands.						
	Bamboos	..	..	..	1	..	1
	Other produce.						
	Miscellaneous	..	..	5,388	..	..	5,388
	Gravel, stones, earth, etc. ..	..	..	4,109	95	..	4,204
	Date and palmyra leaves ..	..	..	2,150	..	..	2,150
	Total ..	..	..	11,647	95	..	11,742

Fifth Circle.

Outturn of minor forest produce during the year 1923-24—*cont.*

Circle.	Description of produce.	Produce removed or utilized							
		By Government agency.		By purchasers		By free grantees.		By right-holders.	Total.
		Quantity.	Value.	Quantity.	Value	Quantity.	Value	Value.	Value.
Fifth Circle —*cont.*	*Abstract for the Fifth Circle.*	NO.	RS.	NO.	RS.	NO.	RS.	RS.	RS.
	Bamboos	6,674	201	..	34,695	..	16	..	34,912
	Grazing, fodder grass and revenue from panchayats.	..	..	..	1,33,512	..	375	1,026	1,34,913
	Other produce ..	QRS. 2,064	3,058	..	1,01,209	..	99	264	1,04,630
	Grand total ..	..	3,259	.	2,69,416	..	490	1,290	2,74,455
Sixth Circle.	*Reserved forests.*	NO.							
	Bamboos	186,780	27,138	..	17,546	88,403	2,650	..	47,334
	Grazing and fodder grass.	..	.	..	36,666	..	34	..	36,700
	Other produce.								
	Canes and reeds ..	..	..	..	600	..	..	..	600
	Tusks	QRS. 1	323	..	..	..	..	..	323
	Blue gum leaves and seeds.	53	578	..	762	..	..	..	1,340
	Barks, avaram, etc. ..	..	..	..	583	..	..	..	583
	Thatch grass	..	21	..	790	..	..	..	811
	Stone and gravel ..	..	..	..	247	..	625	..	872
	Miscellaneous	..	..	..	16,480	..	..	..	16,480
	Tree-owner's fees ..	..	..	..	8	..	..	..	8
	Total ..	54	922	..	19,470	..	625	..	21,017
	Reserved lands.								
	Bamboos	..	..	..	83	9,525	135	..	218
	Grazing and fodder grass.	..	..	..	..	..	717	..	717
	Other produce .	..	..	..	..	..	..	..	..
	Honey and wax ..	52	328	..	..	..	..	..	328
	Tusks and horns ..	15	178	..	..	..	..	..	178
	Thatch grass	..	..	..	..	..	19	..	19
	Total ..	67	506	..	83	9,525	871	..	1,460
	Leased forests.								
	Bamboos	91,626	4,963	2,800	112	..	..	..	5,075
	Miscellaneous ..	..	108	..	..	..	..	..	108
	Total ..	91,626	5,071	2,800	112	..	..	..	5,183
	Unreserved lands.								
	Bamboos	8,200	1,972	..	39	..	..	..	2,011
	Stone, gravel, etc. ..	..	..	..	267	..	..	..	267
	Avaram bark ..	..	..	..	45	..	..	..	45
	Miscellaneous ..	..	..	..	7,639	..	..	..	7,639
	Tree owner's fees ..	..	..	..	854	..	..	..	854
	Total ..	8,200	1,972	..	8,844	..	..	..	10,816

Outturn of minor forest produce during the year 1923-24—*cont.*

Circle.	Description of produce.	Produce removed or utilized							
		By Government agency.		By purchasers.		By free grantees.		By right-holders.	Total.
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Value.	Value.
	Abstract for the Sixth Circle.		RS.		RS.		RS.	RS.	RS.
Sixth Circle —*cont.*	Bamboos	NO. 286,601	34,073	..	17,780	..	2,785	..	54,638
	Grazing and fodder grass.	..	..	.	36,666	..	751	..	37,417
	Other minor produce	QRS. 121	1,536	..	28,275	..	644	..	30,455
	Total ..	..	35,609	..	82,721	..	4,180	..	1,22,510
Total, Presidency.	Bamboos	1,274,354	54,208	..	3,45,119	..	4,339	143	4,03,809
	Grazing and fodder grass.	..	..	..	9,11,783	..	22,435	5,963	9,40,181
	Other produce ..	89,203	28,499	..	7,13,835	..	2,810	764	7,45,908
	Grand total, Presidency.	..	82,707	..	19,70,737	..	29,584	6,870	20,89,898

Annual Form No. 78.

Forest Department, Madras Presidency.

Account of timber, fuel, bamboos and minor produce cut or collected by Government agency and brought to depot, sold locally or otherwise disposed of during 1923–24.

Name of district.	Balance at commencement of the year in forest and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forest and sale depots.
TIMBER (IN THOUSANDS OF CUBIC FEET).					
First Circle.					
Ganjām	252	288	540	(a) 342 (b) 5 (c) 1	192
Vizagapatam	..	1	1	1	..
Gōdāvari, Upper	13	83	96	(a) 38 3	55
Do. Lower	..	9	9	(a) 2 (c) 1 5	1
Total ..	265	381	646	398	248
Second Circle.					
Bellary	..	..	..	..	..
Anantapur	..	..	..	..	..
Guntūr	..	1	1	1	..
Kurnool, East	4	15	19	(a) 1 (c) 17	1
Do. South	..	12	12	12	..
Do. West	28	68	96	(b) 1 (c) 48	47
Total ..	32	96	128	80	48
Third Circle.					
Cuddapah, North	..	1	1	1	..
Do. South	..	7	7	5	2
Do. West	..	3	3	3	..
Nellore	..	1	1	(a) 1	..
Chingleput	..	..	..	..	..
Chittoor	1	1	2	2	..
Vellore, North	..	..	..	..	..
Total ..	1	13	14	12	2
Fourth Circle.					
Vellore, South	2	3	5	4	1
Do. West	1	2	3	3	..
Salem, East	..	..	..	..	..
Do. North	3	12	15	10	5
Do. Central	..	1	1	1	..
Do. South	1	1	2	1	1
Total ..	7	19	26	19	7

Note for the First Circle.—(a) Used departmentally.
(b) Written off.
(c) Used by the Police on fituri duty.

Note for the Second Circle.—(a) Written off.
(b) Used departmentally.
(c) Sold or other wise disposed of.

Note for the Third Circle.—(a) Used departmentally.

* Excludes sandalwood 10¼ quarters in stock.

Account of timber, fuel, bamboos and minor produce cut or collected by Government agency and brought to depot, sold locally or otherwise disposed of during 1923--24—*cont.*

Name of district.	Balance at commencement of the year in forest and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forest and sale depots.
TIMBER (IN THOUSANDS OF CUBIC FEET)—*cont.*					
Fifth Circle.					
Kollegal	1	4	5	(a) 1, 4	..
Coimbatore, North	1	(a) 15, 4	20	18	2
Do. South	93	(b) 142, 2	237	130	107
Madura	1	6	7	5	2
Total ..	96	173	269	158	111
Sixth Circle.					
Mangalore, North ..	16	60	76	62	14
Do. South	56	39	95	31, (a) 1, (b) 5	58
Wynaad	106	94	200	86, (b) 4, (b) 5	105
Nilambur	454	293	747	171, (a) 4, (b) 18	554
The Nilgiris	42	48	90	45, (a) 1, (b) 1	43
Palghat	8	10	18	6	12
Total ..	682	544	1,226	440	786
Exploitation Division ..	21	154	175	127	48
Grand total, Presidency ..	1,104	1,380	2,484	1,234	1,250
FUEL (IN THOUSANDS OF CUBIC FEET).					
First Circle.					
Ganjam	2	311	313	221	92
Vizagapatam	1	3	4	2	2
Godavari, Upper	3	5	8	6	2
Do. Lower	13	16	29	(c) 27, 1	1
Total ..	19	335	354	257	97

Note for the Fifth Circle.—(a) Transferred from Kollegal to Coimbatore, North.
(b) Excess by remeasurement.
Note for the Sixth Circle.—(a) Used departmentally.
(b) Written off.
Note for the First Circle.—(c) Used by the Police on fituri duty.

Account of timber, fuel, bamboos and minor produce cut or collected by Government agency and brought to depot, sold locally or otherwise disposed of during 1923–24—*cont.*

Name of district.	Balance at commencement of the year in forest and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forest and sale depots.
FUEL (IN THOUSANDS OF CUBIC FEET)—*cont.*					
Second Circle.					
Bellary	..	2	2	2	..
Anantapur and Guntūr ..	..	..	..	..	..
Kurnool, East	39	10	49	(a) 37 (o) 12	..
Do. South	..	22	22	22	..
Do. West	1,778	120	1,898	(a) 25 (o) 1,013	860
Total ..	1,817	154	1,971	1,111	860
Third Circle.					
Cuddapah, North	2	13	15	14	1
Do. South	4	25	29	29	..
Do. West	..	1	1	1	..
Nellore	1	27	28	15	13
Chingleput	..	..	..	..	..
Chittoor	10	25	35	30	5
Vellore, North	..	3	3	3	..
Total ..	17	94	111	92	19
Fourth Circle.					
Vellore, South	2	3	5	4	1
Do. West	..	..	..	..	..
Salem, East	1	..	1	1	..
Do. North	..	2	2	2	..
Do. Central	..	..	..	..	..
Do. South	..	4	4	4	..
Total ..	3	9	12	11	1
Fifth Circle.					
Kollegal	1	..	1	1	..
Madura	..	2	2	2	..
Total ..	1	2	3	3	..
Sixth Circle.					
Mangalore, North ..	..	87	87	48	39
Do. South	95	121	216	150	66
Nilambūr	1	2	3	2	1
The Nilgiris	142	515	657	154 (a) 1	502
Palghat	..	7	7	7	..
Total ..	238	732	970	362	608
Grand total, Presidency ..	2,095	1,326	3,421	1,836	1,585

Note for the Second Circle.—(a) Written off.
(o) Sold or otherwise disposed off.
Note for the Sixth Circle.— (a) Used departmentally.

Account of timber, fuel, bamboos and minor produce cut or collected by Government agency and brought to depot, sold locally or otherwise disposed of during 1923-24—*cont.*

Name of district.	Balance at commencement of the year in forest and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forest and sale depots.
BAMBOOS (IN NUMBER).					
First Circle.					
Ganjām	..	8,250	8,250	(*a*) 8,250	..
Vizagapatam	152	21,228	21,380	(*c*) 1,380 (*d*) 20,000	..
Gōdāvari, Upper	..	7,480	7,480	(*a*) 7,480	..
Do. Lower	..	21,140	21,140	3,014 (*a*) 18,126	..
Total ..	152	58,098	58,250	58,250	..
Second Circle.					
Bellary, Anantapur and Guntūr.	..	..	..	..	..
Kurnool, East	11,188	233,532	244,720	(*a*) 10,081 (*b*) 729 (*c*) 229,237	4,673
Do. South	..	4,385	4,385	4,385	..
Do. West	133	673,670	673,803	(*b*) 1,264 (*c*) 668,371	4,168
Total ..	11,321	911,587	922,908	914,067	8,841
Third Circle.					
Cuddapah, North	..	2,171	2,171	2,171	..
Do. South	..	2,165	2,165	2,165	..
Do. West	..	4,114	4,114	(*a*) 156 (*b*) 3,058	900
Nellore	20	50	70	(*b*) 70	..
Chingleput	..	..	..	..	..
Chittoor	160	60	220	220	..
Vellore, North	..	34	34	34	..
Total ..	180	8,594	8,774	7,874	900
Fourth Circle.					
Vellore, South	..	..	..	..	..
Do. West	..	680	680	680	..
Salem, East	..	70	70	70	..
Do. North	65	2,045	2,110	1,160	950
Do. Central	..	..	..	..	..
Do. South	..	..	..	..	..
Total ..	65	2,795	2,860	1,910	950

Note for the First Circle.—(*a*) Used departmentally.
(*b*) Written off.
(*c*) Used by the Police on fituri duty.
(*d*) Granted free.

Note for the Second Circle.—(*a*) Written off.
(*b*) Used departmentally.
(*c*) Sold or otherwise disposed off.

Note for the Third Circle.— (*a*) Sold locally.
(*b*) Used for Government buildings.

Account of timber, fuel, bamboos and minor produce cut or collected by Government agency and brought to depot, sold locally or otherwise disposed of during 1923-24—*cont.*

Name of district.	Balance at commencement of the year in forest and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forest and sale depots.
BAMBOOS (IN NUMBER)—*cont.*					
Fifth Circle.					
Kollegal	..	300	300	300	..
Coimbatore, North ..	1,023	6,374	7,397	7,236	161
Total ..	1,023	6,674	7,697	7,536	161
Sixth Circle.					
Mangalore, North	..	(*d*) 66,063	66,063	65,612 (*a*) 85 (*b*) 366	..
Do. South	8	(*d*) 49,643	49,651	38,323 (*a*) 275	11,053
Wynaad	..	(*d*) 30,416	30,416	21,611 (*a*) 4,205 (*b*) 4,389	211
Nilambur	(*c*) 1,701	140,014	141,715	113,793 (*a*) 3,902 (*b*) 2,705	21,315
Palghat	2	470	472	472	..
Total ..	1,711	286,606	288,317	255,738	32,579
Grand total, Presidency ..	14,452	1,274,354	1,288,806	1,245,375	43,431
MINOR FOREST PRODUCE (IN QUARTERS OF 28 LB.)					
First Circle.					
Ganjam	..	28,640	28,640	(*a*) 28,640	..
Vizagapatam	69	51	120	97	23
Godavari, Upper ..	247	15,715	15,962	8 (*a*) 15,089 (*b*) 4	861
Do. Lower	80	209	289	3 (*a*) 245	41
Kistna	..	27	27	27	..
Total ..	396	44,642	45,038	44,113	925
Second Circle.					
Bellary	(*d*) ..	..	..	..	..
Anantapur	(*e*) 9	18	27	27	..
Guntur	4	259	263	156	107
Kurnool, East	2,457	20,035	22,492	(*a*) 14 (*b*) 500 (*c*) 20,649 21,163	1,329
Do. South	..	..	..	..	..
Do. West	4,769	5,560	10,329	(*c*) 9,029	1,300
Total ..	7,239	25,872	33,111	30,375	2,736

Note for the Sixth Circle.—(*a*) Used departmentally. (*b*) Written off.
(*c*) Errors corrected. (*d*) Includes bamboos extracted for flood relief works.

Note for the First Circle.—(*a*) Used departmentally. (*b*) Written off.

Note for the Second Circle.—(*a*) Written off. (*b*) Used departmentally.
(*c*) Sold or otherwise disposed off.

(*d*) The quantity 1,490,324 quarters of manganese ore shown in the closing balance of the last year's return was not exploited departmentally and hence the omission in the opening balance of this return in column 2.

(*e*) The difference between the closing balance of last year and the opening balance of this year is due to omitting fraction of half-quarter from the return.

Account of timber, fuel, bamboos and minor produce cut or collected by Government agency and brought to depot, sold locally or otherwise disposed of during 1923-24--*cont.*

Name of district.	Balance at commencement of the year in forest and sale deposits.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forest and sale depots.
MINOR FOREST PRODUCE (IN QUARTERS OF 28 LB.)—*cont.*					
Third Circle.					
Cuddapah, North	578	2,302	2,880	2,218	662
Do. South	..	910	910	592	318
Do. West	27	1,884	1,911	338	1,573
Nellore	1,286	9,852*	11,138	3,733	7,405
Chingleput	..	..	..	..	..
Chittoor	27	98	125	85	40
Vellore, North	719	302	1,021	796	225
Total ..	2,637	15,348	17,985	7,762	10,223
Fourth Circle.					
Vellore, South	103	190	293	171	122
Do. West	112 109*	37 ..	149 109*	105 109*	44
Salem, East	..	..	..	..	..
Do. North	29	47	76	71	5
Do. Central	20	30	50	41	9
Do. South	22	853	875	25	850
Total ..	286 109*	1,157 ..	1,443 109*	413 109*	1,030
Fifth Circle.					
Kollegal	4	35	39	39	..
Coimbatore, North	4	2,000	2,004	1,999	5
Do. South	..	13	13	12	1
Madura	1	16	17	17	..
Total ..	9	2,064	2,073	2,067	6
Sixth Circle.					
Wynaad	2	..	2	2	..
The Nilgiris	173	121	294	60 (*a*) 145 (*b*) 23	66
Total ..	175	121	296	230	66
Grand total, Presidency ..	10,742 109*	89,204 ..	99,946 109*	84,960 109*	14,986

Note for the Third Circle.—* Actual receipt is 9,851 quarters and 9 lb. But it has been noted as 9,852 in order to make the total including the opening balance tally as the opening balance should have been 1,287 instead of 1,286.

Note for the Fourth Circle.—* 109 cubic feet of rough stone gravel.

Note for the Sixth Circle.—(*a*) Used departmentally.
(*b*) Written off.

ANNUAL FORM No. 79.

Forest Department, Madras Presidency.

Statement showing the value of timber and other produce at sale depots for the year 1923-24.

District.	Description of timber or produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value	
		Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.
	First Circle—Nil.								
	Second Circle.			Rs.			Rs.	Rs.	Rs.
Kurnool, South.	Timber ..	..	597	298	..	23	9	..	289
	Fuel ..	..	..	..	..	180	2	2	..
Total value.	....	..	..	298	..	..	11	..	287
	Third Circle.								
Cuddapah, North.	Minor forest produce.	..	..	..	Qrs. 182	..	204	204	..
Cuddapah, South.	Timber ..	..	..	..	..	2,479	5,663	5,663	..
	Fuel ..	..	..	..	..	100	3	3	..
	Nux-vomica ..	..	..	..	300	..	294	294	..
	Sandalwood ..	..	..	..	10¼	..	151	151	..
Cuddapah, West.	Nux-vomica ..	..	..	..	1,535	..	1,460	1,460	..
Nellore ..	Fuel ..	..	1,365	87	..	13,043	815	728	..
	Bamboos ..	20	..	2	..	..	..	..	2
	Minor forest produce.	Qrs. 1,286	..	2,614	7,404	..	8,724	6,110	..
Chittoor ..	Timber ..	..	..	..	..	41	330	330	..
	Fuel ..	..	..	..	..	5,391	152	152	..
Vellore, North.	Timber ..	..	..	..	..	31	4	4	..
	Fuel ..	..	..	..	..	495	37	37	..
	Minor forest produce.	Qrs. 719	..	1,038	225	..	84	..	954
Total value.	....	..	..	3,741	..	..	17,921	14,180	..
	Fourth Circle.								
Vellore, West.	Timber ..	..	26	816	..	172	3,724	2,908	..
Salem, East.	Timber ..	..	..	..	..	22	662	662	..
Salem, North.	Timber .	..	3,152	39,459	..	5,011	62,731	23,272	..
	Bamboos ..	No. 65	..	3	No. 950	..	8	..	..
	Minor forest produce.	Qrs. 29	..	111	Qrs. 5	..	33	..	78
Salem, Central.	Timber ..	..	235	4,450	..	255	3,016	..	1,434
	Fuel ..	..	..	..	..	320	35	35	..
	Minor forest produce.	Qrs. 20	..	37	Qrs. 9	..	17	..	20
Salem, South.	Timber ..	..	..	..	..	4	2	2	..
	Fuel ..	..	..	..	..	198	10	10	..
	Minor forest produce.	..	..	..	Qrs. 849	..	589	589	..
Total value.	....	..	..	44,876	..	70,812	..	25,936	..

Statement showing the value of timber and other produce at sale depots for the year 1923-24—*cont.*

District.	Description of timber or produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.
	Fifth Circle.			Rs.			Rs.	Rs.	Rs.
Coimbatore, North.	Timber ..	..	761	15,024	..	1,984	54,359	39,335	..
	Bamboos ..	1,023	..	15	161	..	2	..	13
	Minor produce	QRS. 4	..	2	QRS. 5	..	3	1	..
Coimbatore, South.	Timber ..	..	41,754	52,213	..	74,433	89,115	36,902	..
	Minor produce	*	..	65	QR. 1	..	274	209	..
Madura ..	Timber ..	..	1,304	390	..	1,645	513	123	..
	Fuel	..	360	23	..	320	20	..	3
	Minor produce	QR. 1	..	1	..	..	..	..	1
Tinnevelly	Timber ..	..	81	63	..	461 262 sets	222	159	..
Total value.	....	..	..	67,796	..	..	1,44,508	76,712	..
	Sixth Circle.								
Mangalore, North.	Timber ..	..	..	..	..	8,873	6,094	6,094	..
Mangalore, South.	Timber ..	..	29,690	32,893	..	32,059	46,500	13,607	..
	Bamboos ..	..	..	..	..	NO. (a) 4,898	1,250	1,250	..
Wynaad ..	Timber ..	..	23,201	24,364	..	(b) 17,750	55,511	31,147	..
Nilambur	Timber ..	..	(c) 122,345	59,697	..	(b) 62,575	130,694	70,997	..
	Fuel	..	(c) 777	296	..	338	89	..	207
	Bamboos ..	..	NO. 429	9	..	3,779	201	192	..
	Minor Forest produce.	..	..	2	..	..	..	..	2
The Nilgiris.	Timber ..	..	42,000	48,000	..	..	..	..	48,000
	Fuel	..	142,000	19,000	..	..	..	..	19,000
	Minor Forest produce.	QR. 173	..	250	..	..	..	..	250
Total value.	....	..	..	1,84,511	..	..	2,40,339	55,828	..
	ABSTRACT.								
First Circle— Nil.									
Second Circle.	Timber ..	..	597	298	..	23	9	..	289
	Fuel ..	..	..	..	..	180	2	2	..
Total value.	....	..	..	298	..	..	11	..	287

* Less than one quarter.

(*a*) Out of this 4,663 relate to bamboos purchased for flood relief works.

(*b*) Includes timber with Messrs. Howard Brothers & Co., London, viz., 10,857 cubic feet sent for the British Empire Exhibition and for sale.

(*c*) Error corrected.

Statement showing the value of timber and other produce at sale depots for the year 1923-24—*cont.*

District.	Description of timber or produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.
				ABSTRACT—*cont.*					
				RS.			RS.	RS.	RS.
Third Circle.	Timber ..	..	..	..	QR. 10¼	2,551	6,148	6,148	..
	Fuel	..	1,365	87	..	19,029	1,007	920	..
	Bamboos ..	20	..	2	..	..	..	..	2
	Minor produce	2,005	..	3,652	9,646	..	10,766	7,114	..
	Total value ..	..	..	3,741	..	..	17,921	14,180	..
Fourth Circle.	Timber ..	..	3,413	44,725	..	5,464	70,125	25,400	..
	Fuel	..	..	..	..	518	45	45	..
	Bamboos ..	65	..	3	950	..	3	..	..
	Minor produce	49	..	148	863	..	639	491	..
	Total value ..	..	..	44,876	..	..	70,812	25,936	..
Fifth Circle.	Timber ..	..	43,900	67,690	..	78,523 sets 262	144,209	76,519	..
	Fuel	..	360	23	..	320	20	..	3
	Bamboos ..	1,023	..	15	161	..	2	..	13
	Minor produce	QRS. 5	..	68	QRS. 6	..	277	209	..
	Total value ..	..	..	67,796	..	..	1,44,508	76,712	..
Sixth Circle.	Timber ..	..	217,234	1,64,954	..	121,257	2,38,799	73,845	..
	Fuel	..	142,777	19,296	..	338	89	..	19,207
	Bamboos ..	..	429	9	..	8,677	1,451	1,442	..
	Minor produce.	QRS. 173	..	252	..	..	..	..	252
	Total value ..	..	..	1,84,511	..	..	2,40,339	55,828	..
	Grand total, Presidency.	..	..	3,01,222	..	..	4,73,591	1,72,369	..

ANNUAL

Forest Department,

Summary of revenue of the different

(1)	Budget heads—Receipts. I Timber and other produce removed from the forests by Government Agency. Timber. (2)	Firewood and charcoal. (3)	Bamboos. (4)	Sandalwood. (5)	Grass and other minor produce. (6)	II. Timber and other produce consumers or Timber. (7)	Firewood and charcoal. (8)	Bamboos. (9)	Grazing and fodder grass. (10)
First Circle.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Direction	..	280	..	..	..	..	4	..	..
Ganjam	97,888	1.456	..	..	..	16,282	33,118	8,934	9,482
Vizagapatam ..	1,241	40	215	..	48	3,206	6,174	17,452	4,662
Godavari, Upper ..	39,142	380	..	..	6	6,497	863	30,456	7,185
Godavari, Lower ..	314	3,887	..	..	2	27,819	72,625	66,134	16,339
Kistna	95	47	..	..	17	3,521	22,177	8,399	16,304
Total ..	1,38,680	6,090	215	..	73	57,325	1,34,961	1,31,375	53,972
Second Circle.									
Direction	..	..	..	..	..	..	..	..	..
Bellary	..	71	..	..	..	6,807	10,911	5	28,155
Anantapur ..	..	25	..	..	..	12,421	3,461	373	41,686
Guntur	..	..	..	..	71	16,586	32,529	51	85,297
Kurnool, East ..	10,622	424	4,749	..	8,348	3,424	278	1,222	49,153
,, South ..	9,966	701	..	..	..	12,345	9,070	28,908	19,049
,, West ..	20,103	5,963	13,988	..	5,421	9,691	3,869	..	38,867
Total ..	40,691	7,184	18,737	..	13,840	61,374	60,118	30,559	2,62,207
Third Circle.									
Direction	..	..	..	..	..	..	..	..	..
Cuddapah, North ..	17	118	1	..	26	8,917	6,398	3,889	23,389
,, South ..	8,712	388	..	..	24	6,409	4,249	2,245	9,211
,, West ..	117	28	2	..	..	11,039	4,178	1,465	27,051
Nellore	3	442	..	..	6,606	3,847	66,804	72	67,473
Chingleput ..	2	7	..	..	29	8,014	14,393	24	23,921
Chittoor	164	779	1	22	..	14,866	12,524	8,527	42,219
Vellore, North ..	11	168	2	..	853	20,140	22,093	13,665	26,379
Total ..	9,026	1,930	6	22	7,538	73,232	1,30,639	9,887	2,19,643
Fourth Circle.									
Direction	..	..	..	2,150	..	..	..	..	..
Forest Engineer ..	..	..	..	..	..	..	..	..	..
South Vellore ..	25	204	..	54,665	41	11,733	12,724	43,484	28,691
West Vellore ..	114	..	..	51,089	..	1,801	3,406	9,903	27,468
East Salem.. ..	..	28	..	8,713	40	11,881	14,886	19,198	46,355
North Salem ..	686	145	2	206,617	23	8,738	1,157	5,303	28,984
Central Salem ..	8	33	..	9,021	10	10,354	10,259	8,598	34,645
South Salem ...	2	110	..	23,108	7	25,377	26,107	9,005	29,731
Tanjore ..	..	..	..	..	..	1,507	3,908	14	141
Total ..	835	520	2	3,55,363	121	65,891	72,447	95,505	1,96,015

Note.—Of the revenue under I (*d*) Rs. 2,150 relate to othe Circle (Rs. 1,273 to Chittoor, Rs. 15 to North Vellore, Rs. 48 to South Cuddapah, Third Circle, and Rs. 814 to Tinnevelly, Fifth Circle.

FORM No. 80.

Madras Presidency.

districts for the year 1923-24.

removed from the forests by purchasers.				III. Confiscated drift and waif-wood.	IV. Revenue from forest not managed by Government— Revenue from shared and private forests.	V. Miscellaneous.		Total Receipts.	Deduct 'Refunds'— Voted.	Net Revenue Receipts.
Other produce.	Rents for trees tapped.	Other items.	Commutation fees.			Fines and forfeitures.	Other sources.			
(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
RS.	RS.	RS.	RS.	RS.		RS.	RS.	RS.	RS.	RS.
35	..	..	..	..	..	..	(a) 1,099	1,418	..	1,418
6,108	1,110	..	..	419	..	4,566	5,685	1,85,048	113	1,84,935
12,796	892	..	..	19	..	2,604	483	49,832	77	49,755
1,005	..	..	..	1,096	..	1,089	1,574	89,293	419	88,874
26,757	5,853	..	..	3,386	..	7,181	3,888	2,34,184	1,519	2,32,665
10,663	11,506			164	..	6,935	3,972	83,800	217	83,583
57,364	19,361	..	..	5,083	..	22,375	16,701	6,43,575	2,345	6,41,230
..	..	..	..	..	..		12	12	..	12
23,343	36,539	..	..	54	..	8,455	1,510	1,15,950	2,311	1,13,639
50,203	16,302	.	..	225	..	9,945	695	1,35,336	38	1,35,298
23,415	5,767	..	..	271	..	40,511	3,391	2,07,889	4,036	2,03,853
5,272	1,096	..	..	648	..	7,487	1,149	93,872	173	93,699
16,705	2,846	..	..	1,047	..	10,654	5,425	1,16,716	365	1,16,351
37,933	11,553	..	..	441	..	4,009	2,531	1,54,369	243	1,54,126
1,56,871	74,103	..	..	2,686	..	81,061	14,713	8,24,144	7,166	8,16,978
..	..	..	..	..	..	..	4	4	..	4
8,234	1,031	..	..	439	..	4,157	797	57,413	196	57,217
15,319	1,739	70	..	1,056	..	2,845	868	53,135	519	52,616
19,340	2,868	..	..	449	..	7,420	707	74,664	2,023	72,641
14,664	8,737	..	..	327	..	16,456	1,127	1,86,558	560	1,85,998
8,295	2,779	..	.	159	..	3,576	891	62,090	67	62,023
44,776	5 325	..	..	267	..	14,061	2,119	1,45,650	698	1,44,952
20,457	4,730	.	..	150	..	13,629	755	1,23,032	454	1,22,578
1,31,085	27,209	70	..	2,847	..	62,144	7,268	7,02,546	4,517	6,98,029
..	..	..	..	..	..	..	39	2,189	..	2,189
..	..	..	..	..	..	..	9	9	..	9
18,071	3,698	..	..	359	..	18,749	522	1,92,961	9,677	1,83,284
10,709	415	..	..	629	..	5,718	2,431	1,13,183	5,176	1,08,007
18,523	1,149	7	..	449	..	17,057	2,138	1,40,424	1,834	1,38,590
10,980	971	1,015	..	144	..	4,649	1,426	2,66,840	15	2,66,825
12,901	104	690	438	313	..	8,989	9,994	1,06,357	445	1,05,912
53,759	17	..	..	239	..	26,706	3,264	1,97,432	622	1,96,810
10,418	156	6,209	..	..	..	3,760	218	26,331	..	26,331
1,35,361	6,505	7,921	438	2,133	..	85,628	20,041	10,44,726	17,769	10,26,957

(a) Includes Rs. 935 relating to Ganjam.

Summary of revenue of the different

(1)	Budget heads—Receipts								
	I. Timber and other produce removed from the forests by Government Agency.					II. Timber and other produce consumers or			
	Timber. (2)	Firewood and charcoal. (3)	Bamboos. (4)	Sandalwood. (5)	Grass and other minor produce. (6)	Timber. (7)	Firewood and charcoal. (8)	Bamboos. (9)	Grazing and fodder grass. (10)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Fifth Circle.									
Direction	(a) 17,243	3	..	(b) 3,14,250	..	..	50	..	..
Kollegal	259	15	..	..	225	4,959	3,121	5,219	49,575
Coimbatore, North.	933	4	10	1,03,658	32	18,627	31,119	18,034	42,875
Coimbatore, South.	1,84,762	..	..	..	(g) 1,459	13,611	16,169	6,716	(d) 5,882
Madura	7,624	130	..	..	6	7,839	68,594	3,739	22,160
Tinnevelly ..	266	14	..	(c) ..	..	1,219	1,44,405	987	13,023
Forest Engineer .	..	..	..	..	..	..	..	..	..
Total ..	2,11,087	166	10	4,17,908	1,722	46,255	2,63,458	34,695	1,33,515
Sixth Circle.									
Direction	(a) 32,743	..	..	..	..	..	..	..	..
North Mangalore ..	30,963	2,407	94	2,840	..	27,268	41,205	4,042	5,754
South Mangalore ..	41,036	3,977	..	3,885	40	9,062	4,500	407	10,479
Wynaad	1,01,466	..	2,086	..	114	7,432	389	925	4,728
Nilambur	2,58,086	137	9,564	..	47	29,804	..	127	..
The Nilgiris ..	17,732	9,243	..	21,194	1,070	3,057	6,895	537	9,460
Palghat .. .	1,661	481	10	..	..	7,486	45,354	6,939	6,246
Forest Research Office.	..	..	..	..	..	..	..	..	..
Total ..	4,83,687	16,245	11,754	27,919	1,271	84,109	98,343	12,977	36,667

Note for Fifth Circle—

(a) Relates to South Coimbatore.

(b) Rupees 2,09,694 relates to North Coimbatore and the balance to Kollegal.

(c) Excludes Rs. 814 credited in the South Vellore accounts.

(d) Includes Rs. 3 wrongly credited to II (d) instead of to V (b).

(e) Includes Rs. 173 relating to South Coimbatore and Rs 455 to IV Circle.

(f) Excludes Rs. 4,600 credited in the accounts of the VI Circle.

(g) Includes Rs. 56 and Rs. 344 pertaining to Nilambur and Wynaad divisions respectively in the VI Circle.

The revenue for V Circle including the amounts credited in the Sixth Circle and South Vellore district and excluding the amount pertaining to IV and VI Circles comes to Rs. 13,22,103.

districts for the year 1923-24—*cont.*

—*cont.*

removed from the forests by purchasers.				III. Confiscated drift and waif-wood.	IV. Revenue from forest not managed by Government—Revenue from shared and private forests.	Miscellaneous.		Total receipts.	Deduct 'Refunds'—Voted.	Net Revenue Receipts.
Other produce.	Rents for trees tapped.	Other items.	Commutation fees.			Fines and forfeitures.	Other sources.			
(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(30)	(21)
Rs.	Rs.	Rs.	Rs.	Rs		Rs.	Rs.	Rs.	Rs.	Rs.
..	..	..	..	..	..	..	68	3,31,614	..	3,31,614
4,502	45	..	..	89	..	4,466	2,051	74,526	77	74,449
14,392	23	..	..	175	..	11,742	2,517	3,44,141	292	2,43,849
12,389	..	..	..	137	..	3,290	(*f*) 51,200	2,95,615	199	2,95,416
(*e*)32,964	..	..	..	1,173	..	12,178	9,942	1,66,289	901	1,65,388
35,714	..	..	..	398	..	7,618	3,276	2,06,920	201	2,06,719
..	..	..	..	..	..	..	109	109	..	109
99,901	68	..	..	1,972	..	39,294	69,163	13,19,214	1,670	13,17,544
..	..	..	..	.	..	..	(*b*) 6,211	38,954	1	38,953
2,446	401	..	..	467	..	6,283	1,239	1,25,409	540	1,24,869
6,581	461	..	..	230	..	7,041	3,390	91,089	1,602	89,487
2,997	..	..	..	19	..	1,307	15,442	1,36,905	12	1,36,893
2,095	..	..	..	3	..	1,047	6,610	3,07,520	147	3,07,373
2,074	..	..	..	33	..	2,850	27,278	1,01,423	185	1,01,238
8,493	.	..	..	146	..	6,522	2,044	85,382	103	85,279
..	..	..	..	..	..	..	29	29	..	29
24,686	862	.	..	898	..	25,050	62,243	8,86,711	2,590	8,84,121 (*c*)

Note for Sixth Circle—

(*a*) Revenue relating to the forest exploitation division credited in the account of the Sixth Circle. (Forest Exploitation Division is omitted.)

(*b*) Includes Rs. 4,600 on account of sale of elephants relating to Fifth Circle and Rs. 1,582 being revenue on account of the Forest Exploitation Division.

(*c*) Excludes Rs. 400 being revenue on account of sale of ivory credited in the Fifth Circle (Rs. 344 Wynaad and Rs 56 Nilambur).

Note—	Rs.	Rs.
Total revenue as per this statement.	8,84,121	..
Deduct—		
(1) Revenue relating to to Fifth Circle.	4,600	..
(2) Revenue relating to Forest Exploitation Division.	34,325	38,925
		8,45,196
Add revenue for Sixth Circle credited to Fifth Circle.		400
Net revenue for Sixth Circle ..		8,45,596

Summary of expenditure of the different districts for the year 1923-24.

Budget heads.	Direction.	Ganjam.	Vizagapatam.	Godavari, Upper.	Godavari, Lower.	Kistna.	Total.
FIRST CIRCLE.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
B. Conservancy and Works.							
I. Timber and other produce removed from the forests by Government Agency—							
(a) Timber	..	40,098	184	14,398	4	..	54,684
(b) Firewood and charcoal ..	..	804	..	179	131	..	1,114
(c) Bamboos	..	..	87	..	..	..	87
(d) Sandalwood	..	..	..	..	..	..	..
(e) Grass and other minor produce.		..	..	..	19	..	19
II. Timber and other produce removed from the forests by consumers or purchasers.	..	4,801	3,233	3,383	13,140	3,818	28,375
III. Confiscated drift and waifwood ..	..	67	..	57	202	..	326
IV. Forests not managed by Government—							
(a) Shared and private forests.	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	483	..	..	..	483
VI. Live-stock, stores, tools and plant—							
(a) Purchase of cattle	..	.	..	..	..	..	..
(b) Feed and keep of cattle ..	..	..	..	1,845	..	..	1,845
(c) Stores, tools and plant ..	..	1,299	57	1,062	7,958	1,262	11,638
VII. Communications and buildings—							
(a) Roads and bridges	..	2,318	1,467	1,246	1,647	163	6,841
(b) Buildings	..	9,483	991	3,524	4,079	38	18,115
(c) Other works	..	16	53	304	29	200	602
VIII Demarcation, improvement and extension of forests—							
(a) Demarcation	..	9	23	4	727	44	807
(b) Cost of forest settlement, compensation for land and rights.	..	..	..	..	..	..	..
(c) Surveys—							
(1) Local	..	..	..	..	..	..	..
(2) India	..	..	..	..	..	..	..
(d) Working-plans	..	..	..	..	..	..	..
(e) Sowing and planting .	198	141	99	327	101	18	884
(f) Protection from fire .	..	5,663	1,339	5,495	3,857	461	16,815
(g) Other works		1,688	28	287	72	50	2,125
IX. Miscellaneous—							
Non-voted—							
(a) Rates and taxes	..	..	1	..	86	39	126
Voted—							
(b) Law charges	..	..	16	..	..	2	18
(c) Other charges	..	471	..	62	..	46	579
Investment on Government commercial undertakings.	..	75	..	..	..	..	75
Loss on Government commercial undertakings.	..	6,216	..	..	..	..	6,216
Total, B. Conservancy and Works ..	198	73,149	8,061	32,173	32,052	6,141	1,51,774

Summary of expenditure of the different districts for the year 1923–24 —*cont.*

Budget heads.	Direction.	Ganjam.	Vizagapatam.	Godavari, Upper.	Godavari, Lower.	Kistna.	Total.
FIRST CIRCLE—*cont.*	RS.	RS.	RS.	RS	RS.	RS.	RS.
C. Establishments.							
I. Pay of officer—							
Non-voted—							
(*a*) Conservator	21,924	..	..	..	..	..	21,924
(*b*) Superior officers appointed by the Secretary of State.	..	21,704	3,523	2,917	..	..	28,144
II. Pay of officers—							
Voted—							
Superior officers appointed in India.	..	1,500	4,699	5,856	5,170	6,066	23,291
III. Establishment—							
Voted—							
(*a*) Subordinate forest and depot establishments.	..	48,509	16,417	36,649	35,298	16,122	1,52,995
(*b*) Office establishments	8,853	13,583	6,293	10,739	10,018	6,726	56,212
IV. Allowances, Honoraria, etc.—							
(*a*) Travelling allowances—							
(1) Conservators	3,484	..	..	..	..	...	3,484
(2) Superior officers	6	5,800	1,542	1,209	1,074	1,207	10,838
(3) Subordinate forest and depot establishments.	..	7,287	1,259	3,976	4,552	1,532	18,606
(4) Office establishments ..	1,005	1,530	612	2,069	1,402	439	7,057
(*b*) Fixed travelling allowance, etc—							
(1) Fixed travelling allowance and conveyance allowances.	..	3,252	1,792	—5,821	1,256	1,281	1,760
(2) House-rent and other allowances.	..	—303	..	8,916	1,461	31	10,105
(*c*) Honoraria	..	..	..	..	..	..	..
V. Contingencies—							
(*a*) Contract group—							
(1) Service postage and telegram charges.	400	1,352	2	890	1,296	662	4,602
(2) Other contract contingencies ..	1,405	1,251	541	1,286	1,371	742	6,596
(*b*) Non-contract groups—							
Non-voted—							
(1) Rates and taxes	416	223	270	..	21	97	1,027
(2) Pay of menials where non-contract.	..	..	..	..	..	..	..
(3) Rents	..	..	..	54	144	468	666
(4) Other contingencies ..	39	375	430	516	44	39	1,443
Total, C. Establishments ..	37,532	1,06,063	37,380	69,256	63,107	35,412	3,48,750
Grand Total of Expenditure, B and C ..	37,720	1,79,212	45,441	1,01,429	95,159	41,553	5,00,524

134092

Summary of expenditure of the different districts for the year 1923-24—*cont.*

Budget heads.	Direction.	Bellary.	Anantapur.	Guntur.	Kurnool, East.	Kurnool, South.	Kurnool, West.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
SECOND CIRCLE.								
B. Conservancy and Works.								
I. Timber and other produce removed from the forests by Government Agency—								
(*a*) Timber	..	..	..	..	2,634	1,172	5,588	9,39
(*b*) Firewood and charcoal ..	..	10	..	141	147	342	753	1,39
(*c*) Bamboos	..	..	..	..	3,445	..	6,823	10,26
(*d*) Sandalwood	..	..	..	..	..	..	..	..
(*e*) Grass and other minor produce.	..	..	..	239	4,096	20	1,568	5,92
II. Timber and other produce removed from the forests by consumers or purchasers.	..	1,234	5,822	11,516	3,634	3,595	8,854	34,65
III. Confiscated drift and waifwood ..	..	..	..	..	11	40	10	6
IV. Forests not managed by Government—								
(*a*) Shared and private forests.	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	..	..	..	..	..	..
VI. Live-stock, stores, tools and plant—								
(*a*) Purchase of cattle	..	..	..	..	..	..	..	..
(*b*) Feed and keep of cattle ..	..	..	..	..	..	..	1,776	1,77
(*c*) Stores, tools and plant ..	2	66	151	312	427	258	340	1,55
VII. Communications and buildings—								
(*a*) Roads and bridges	..	..	..	1,065	7,876	5,173	4,014	18,12
(*b*) Buildings	..	1,692	2,714	2,527	3,442	3,354	2,642	16,37
(*c*) Other works	..	53	4	340	844	220	277	1,73
VIII. Demarcation, improvement and extension of forests—								
(*a*) Demarcation	..	145	138	184	..	166	551	1,18
(*b*) Cost of forest settlement; compensation for land and rights.	..	..	..	..	..	18	..	—1
(*c*) Surveys—								
(1) Local	..	..	..	..	936	..	49	98
(2) India	..	..	..	..	..	..	..	..
(*d*) Working-plans	..	..	..	175	..	20	..	19
(*e*) Sowing and planting ..	..	54	100	202	1,022	2,147	6,447	9,97
(*f*) Protection from fire ..	..	470	277	..	340	1,028	1,467	3,58
(*g*) Other works	..	..	..	943	1,113	50	371	2,47
IX. Miscellaneous—								
Non-voted—								
(*a*) Rates and taxes	..	..	..	..	..	..	..	..
Voted—								
(*b*) Law charges	..	3	..	6	29	13	..	5
(*c*) Other charges	..	1,142	..	203	1,685	40	3,617	6,68
Total, B. Conservancy and Works ..	2	4,869	9,206	17,853	31,681	17,620	45,147	1,26,37

Summary of expenditure of the different districts for the year 1923-24—*cont.*

Budget heads.	Direction.	Bellary.	Anantapur.	Guntur.	Kurnool, East.	Kurnool, South.	Kurnool, West.	Total.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
SECOND CIRCLE—*cont*								
O. Establishments.								
I. Salaries—								
(*a*) Conservators	18,894	..	..	..	..	..	..	18,894
(*b*) Superior officers appointed by Secretary of State.	1,977	2,700	1,250	1,657	..	3,125	3,751	14,460
II. Superior officers appointed in India.	..	7,330	6,454	19,957	5,260	9,343	14,984	63,328
III. (*a*) Subordinate forest and depot establishments.	..	35,677	40,329	34,273	34,832	45,222	54,122	2,44,455
(*b*) Office establishments	9,791	7,900	8,735	8,508	9,708	9,427	17,814	71,883
IV. Travelling allowances—								
(*a*) (1) Conservators	3,465	..	..	200	..	..	150	3,815
(2) Superior officers	804	1,420	1,096	4,035	2,095	2,640	2,833	14,923
(3) Subordinate forest and depot establishments.	..	2,441	3,717	2,995	3,700	5,647	5,801	24,301
(4) Office establishments ..	1,321	610	1,252	1,638	1,074	1,456	1,685	9,036
IV. (*b*) (1) Fixed travelling allowance and conveyance allowances.	..	1,899	2,847	2,646	3,468	2,052	5,699	18,611
III. Contingencies—								
V. (*a*) (1) Service postage and telegrams.	491	531	830	865	886	836	1,149	5,588
(2) Other contracts and contingencies.	1,291	1,002	1,204	1,529	1,551	1,637	1,228	9,442
(*b*) (1) Rates and taxes	.	445	151	30	28	45	101	800
(3) Rents	400	..	..	114	402	..	83	999
(4) Other contingencies ..	45	277	56	130	257	418	5,865	7,048
Total, C. Establishments ..	38,479	62,232	67,921	78,577	63,261	81,848	1,15,265	5,07,583
Grand Total of Expenditure, B and C ..	38,481	67,101	77,127	96,430	94,942	99,468	1,60,412	6,33,961

Summary of expenditure of the different districts for the year 1923-24—*cont.*

Budget heads.	Direction.	Cuddapah, North.	Cuddapah, South.	Cuddapah, West.	Nellore.	Chingleput.	Chittoor.	Vellore, North.	Total.
THIRD CIRCLE.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. *Conservancy and Works.*									
I. Timber and other produce removed from the forest by Government Agency—									
(*a*) Timber ..	..	..	2,870	..	..	..	721	40	3,631
(*b*) Firewood and charcoal.	..	..	13	8	25	..	180	..	226
(*c*) Bamboos	..	..	..	..	..	..	..	..	..
(*d*) Sandalwood ..	..	..	..	..	..	..	167	..	167
(*e*) Gross and other minor produce.	..	156	228	935	5,871	23	..	35	7,248
II. Timber and other produce removed from the forests by consumers or purchasers.	..	2,589	2,321	6,985	2,975	2,757	11,321	10,297	39,245
III. Confiscated drift and waifwood.	..	19	16	48	531	..	6	2	622
IV. Forests not managed by Government—									
(*a*) Shared and private forests.	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	..	..	..	..	..	..	..
VI. Live-stock, stores, tools and plant—									
(*a*) Purchase of cattle.	..	..	..	..	..	..	..	..	..
(*b*) Feed and keep of cattle.	..	..	..	..	..	25	2	..	27
(*c*) Stores, tools and plant.	92	266	344	426	1,795	181	727	68	3,899
VII. Communications and buildings—									
(*a*) Roads and bridges.	..	693	1,551	1,075	32	1,083	3,685	2,034	10,153
(*b*) Buildings ..	..	3,953	4,544	4,425	4,806	4,807	2,873	2,210	27,618
(*c*) Other works ..	..	469	512	1,100	344	44	990	40	3,499
VIII. Demarcation, improvement and extension of forests—									
(*a*) Demarcation ..	..	99	..	..	168	625	323	120	1,335
(*b*) Cost of Forest Settlement; compensation for land and rights.	..	..	4,220	..	136	..	205	..	4,561
(*c*) Surveys { Local	..	..	..	..	1	..	..	..	1
(*c*) Surveys { India	..	..	..	..	..	..	..	..	..
(*d*) Working-plans ..	..	..	..	..	..	..	..	..	..
(*e*) Sowing and planting.	..	8	124	42	38	2	790	981	1,985
(*f*) Protection from fire.	..	689	899	1,263	1,578	1,334	4,114	298	10,175
(*g*) Other works ..	..	..	855	302	2,086	281	1,366	234	5,124
IX. Miscellaneous—									
Non-voted—									
(*a*) Rates and taxes ..	..	..	..	..	..	..	..	10	10
Voted—									
(*b*) Law charges ..	..	13	13	2	8	..	..	4	40
(*c*) Other charges ..	..	94	..	23	..	24	359	..	500
Total, B. Conservancy and Works.	92	9,048	18,510	16,634	20,394	11,186	27,829	16,373	1,20,066

Summary of expenditure of the different districts for the year 1923-24—*cont.*

Budget heads.	Direction.	Cuddapah, North.	Cuddapah, South.	Cuddapah, West.	Nellore.	Chingleput.	Chittoor.	Vellore, North.	Total.
THIRD CIRCLE—*cont.*	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
C. Establishments.									
I. Salaries—									
Non-voted—									
(*a*) Pay of Conservators.	31,118	..	..	..	..	..	..	..	31,118
(*b*) Pay of other officers appointed by the Secretary of State.	4,200	..	7,487	..	..	823	7,475	..	19,985
II. Pay of superiors appointed in India—Voted.	..	5,700	876	7,982	8,777	7,430	5,590	7,475	43,780
III. Pay of establishment—									
Voted—									
(*a*) Subordinate forest and depot establishment.	..	33,708	38,337	36,976	55,303	29,253	57,086	23,992	2,74,655
(*b*) Office establishments.	11,371	7,686	8,718	9,039	9,702	5,538	10,408	7,410	69,872
IV. Travelling allowance of—									
(*a*) (1) Conservators ..	3,095	..	..	..	..	..	386	..	3,481
(2) Superior officers.	586	969	1,728	1,643	2,723	1,444	3,811	1,300	14,204
(3) Subordinate forest and depot establishment.	..	5,359	2,066	3,416	3,659	1,955	3,604	1,732	21,791
(4) Office establishment.	1,472	760	800	856	1,054	1,002	1,204	676	7,824
(*b*) (1) Fixed travelling allowance.	..	2,434	4,448	4,158	4,373	2,243	5,439	1,645	24,740
V. Contract contingencies—									..
Voted—									
(*a*) (1) Service postage ..	410	624	684	675	844	560	973	565	5,335
(2) Office expenses ..	3,835	1,272	871	1,279	1,227	642	1,661	495	11,282
(*b*) Non-contract contingencies.	..	..	..	..	..	..	..	..	
Non-voted—									
(1) Rates and taxes ..	..	44	32	15	58	22	214	112	497
Voted—									
(2) Rents	..	..	.	174	..	550	5	..	729
(4) Other contingencies.	34	359	102	710	653	50	..	160	2,068
Total, C. Establishments ..	56,121	58,915	66,149	66,873	88,373	51,512	97,856	45,562	5,31,361
Grand Total of Expenditure ..	56,213	67,963	84,659	83,507	1,08,767	62,698	1,25,685	61,935	6,51,427

Summary of expenditure of the different districts for the year 1923-24—*cont.*

Budget heads.	Direction.	Forest Engineer.	Vellore, South.	Vellore, West.	Salem, East.	Salem, North.	Salem, Central.	Salem, South.	Tanjore.	Total.
FOURTH CIRCLE.	RS.	RS.	RS.	RS.	RS.	RS	RS.	RS.	RS.	RS.
B. Conservancy and Works.										
I. Timber and other produce removed from the forests by Government Agency—										
(*a*) Timber ..	..	..	41	134	60	251	..	..	..	486
(*b*) Firewood and charcoal.	..	..	..	..	..	59	70	..	..	129
(*c*) Bamboos ..	..	..	..	..	..	..	..	..	..	..
(*d*) Sandalwood ..	—51	..	4,152	5,936	992	21,207	1,573	3,252	..	37,061
(*e*) Grass and other minor produce.	..	..	..	4	..	..	256	42	..	302
II. Timber and other produce removed from the forests by consumers or purchasers.	..	..	2,991	2,513	5,518	3,376	6,273	5,267	198	26,136
III. Confiscated, drift and waif-wood.	..	..	..	15	1	3	2	5	..	26
IV. Forests not managed by Government—										
(*a*) Shared and private forests.	..	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	..	..	..	2	..	..	..	2
VI. Live-stock, stores, tools and plant—										
(*a*) Purchase of cattle.	..	..	..	..	..	..	..	..	..	..
(*b*) Feed and keep of cattle.	..	..	..	..	..	..	..	..	..	..
(*c*) Stores, tools and plant.	13	294	276	178	113	450	200	107	..	1,631
VII. Communications and buildings—										
(*a*) Roads and bridges.	..	2,608	2,866	3,021	177	654	1,504	2,141	..	12,971
(*b*) Buildings ..	22	..	6,040	4,652	2,005	1,321	1,528	3,175	169	18,982
(*c*) Other works ..	..	..	1,165	190	80	270	28	4	..	1,737
VIII. Demarcation, improvement and extension of forests—										
(*a*) Demarcation ..	..	..	..	50	685	..	437	630	43	1,845
(*b*) Cost of forest settlement; compensation for land and rights.	..	..	..	267	..	..	..	711	..	978
(*c*) Surveys. { Local.	..	..	..	..	..	..	..	..	..	..
(*c*) Surveys. { India.	..	..	..	..	..	..	..	..	..	..
(*d*) Working-plans.	..	..	..	..	..	..	..	..	..	..
(*e*) Sowing and planting.	..	..	658	954	699	202	351	137	..	3,001
(*f*) Protection from fire.	..	..	1,082	862	1,129	1,020	1,295	973	20	6,381
(*g*) Other works ..	..	..	127	211	320	280	221	30	30	1,219

Summary of expenditure of the different districts for the year 1923-24—*cont.*

Budget heads.	Direction.	Forest Engineer.	Vellore, South.	Vellore, West.	Salem, East.	Salem, North.	Salem, Central.	Salem, South.	Tanjore.	Total.
FOURTH CIRCLE—*cont.* *Conservancy and Works* —cont.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
IX. Miscellaneous—										
Non-voted—										
(*a*) Rates and taxes.	..	..	..	71	..	10	1	2	..	84
Voted—										
(*b*) Law charges ..	..	..	2	..	15	52	..	23	..	92
(*c*) Other charges..	..	..	25	10	..	53	15	50	..	153
Total, B. Conservancy and Works.	— 16	2,902	19,425	19,068	11,794	29,210	13,824	16,549	460	1,13,216
C. Establishments.										
I. Salaries—										
Non-voted—										
(*a*) Conservators ..	22,781	..	..	..	..	..	..	..	..	22,781
(*b*) Superior officers appointed by the Secretary of State.	5,350	5,925	..	12,404	..	..	..	725	..	24,304
II. Salaries—										
Voted—										
Superior officers appointed in India.	..	1,933	16,077	1,150	7,051	5,935	6,384	5,664	..	44,194
III. Voted—										
(*a*) Subordinate Forest and depot establishments.	..	3,121	29,879	29,676	35,733	29,486	29,528	35,769	975	1,94,167
(b) Office establishments.	9,126	1,649	9,259	8,779	8,609	9,630	9,505	10,046	..	66,603
IV. Allowances, honoraria, etc.										
(*a*) Travelling allowances—										
(1) Conservators.	2,122	..	..	..	..	..	100	..	..	2,222
(2) Superior officers.	651	992	2,063	1,705	1,005	965	688	1,434	..	9,443
(3) Subordinate Forest and depot establishments.	..	889	2,329	2,944	2,997	5,354	1,944	3,521	120	(*a*)20,098
(4) Office establishments.	564	520	752	1,133	632	798	464	1,278	..	6,141
(*b*) (1) Fixed travelling allowances and conveyance allowances.	..	70	2,646	2,044	1,846	2,576	2,212	2,758	10	14,162
V. Contingencies—										
Voted Contract items—										
(*a*) (1) Service postage and telegrams.	300	50	650	577	764	988	1,056	951	30	[5,366
(2) Other contract contingencies.	2,841	..	1,267	1,048	1,257	1,266	770	1,143	15	9,607
Non-contract items—										
Non-voted—										
(*b*) (1) Rates and taxes.	..	50	214	78	401	15	172	20	..	950
Voted—										
(*b*) (2) Pay of menials when non-contract.	..	..	..	..	..	..	..	..	..	..
(3) Rents	..	250	..	8	..	200	..	240	..	748
(4) Other contingencies	100	841	155	92	59	61	174	240	11	1,543
Total, C. Establishments..	43,735	16,290	65,231	61,638	60,354	57,274	52,997	63,549	1,161	4,222,29
Grand Total of Expenditure.	43,713	19,192	84,656	80,706	72,148	86,484	66,821	80,098	1,621	5,35,445

(*a*) Includes a sum of Rs. 2,705 being the fixed travelling allowance and conveyance allowance of the circle for the months of April and May 1923.

Summary of expenditure of the different districts for the year 1923-24—*cont.*

Budget heads.	Direction.	Kollegal.	Coimbatore, North.	Coimbatore, South.	Madura.	Tinnevelly.	Forest Engineer.	Total.
FIFTH CIRCLE.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
B. Conservancy and Works.								
I. Timber and other produce removed from the forests by Government Ageney—								
(*a*) Timber	..	..	(*h*)13,967	76,574	2,979	49	..	93,569
(*b*) Firewood and charcoal.	..	..	..	..	..	..	..	..
(*c*) Bamboos	..	..	..	..	..	..	..	..
(*d*) Sandalwood ..	614	6,886	29,265	..	..	116	..	36,881
(*e*) Grass and other produce.	..	116	159	2	..	..	..	277
II. Timber and other produce removed from the forests by consumers or purchasers.	..	3,564	6,814	1,848	9,885	5,238	..	27,349
III. Confiscated drift and waif-wood.	..	..	23	19	3	..	..	45
IV. Forests not managed by Government—								
(*a*) Shared and private forests.	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	..	3,081	..	..	..	3,081
VI. Live-stock, stores, tools and plant—								
(*a*) Purchase of cattle ..	..	..	..	7,781	..	..	..	7,781
(*b*) Feed and keep of cattle.	..	..	..	42,710	..	..	..	42,710
(*c*) Stores, tools and plant.	1,210	41	399	4,082	18	506	271	6,527
VII. Communications and buildings—								
(*a*) Roads and bridges ..	3,455	936	3,265	14,138	10,144	4,279	68,671	1,04,888
(*b*) Buildings	5,765	864	2,604	3,932	2,898	4,554	..	20,617
(*c*) Other works	..	73	71	601	363	2	85	1,195
VIII. Demarcation, improvements and extension of forests—								
(*a*) Demarcation ..	..	410	20	83	320	41	..	874
(*b*) Cost of forest settlement, compensation for land and rights.	..	..	..	..	..	..	..	..
(*c*) Surveys { Local ..	..	..	..	..	..	..	..	..
(*c*) Surveys { India ..	..	..	..	..	..	..	..	..
(*d*) Working plans ..	1,987	..	..	..	..	..	..	1,987
(*e*) Sowing and planting.	..	21	252	13,787	188	4,891	..	19,149
(*f*) Protection from fire.	..	502	1,325	662	2,254	1,574	..	6,317
(*g*) Other works ..	..	2,576	988	891	1,699	1,261	..	7,415
IX. Miscellaneous—								
Non-voted—								
(*a*) Rates and taxes ..	..	13	..	..	239	..	..	252
Voted—								
(*b*) Law charges ..	..	89	..	..	3	..	..	92
(*c*) Other charges ..	278	38	1,224	1,363	10	284	..	3,197
Total, B. Conservancy and Works.	13,309	16,129	60,386	1,71,554	31,003	22,795	69,027	3,84,203

(*h*) Includes Rs. 13,835 spent by Mr. T. Clear while in charge of North Coimbatore division for despatch of timber for sale at the British Empire Exhibition in London.

Summary of expenditure of the different districts for the year 1923-24—*cont.*

Budget heads.	Direction.	Kollegal.	Coimbatore, North.	Coimbatore, South.	Madura.	Tinnevelly.	Forest Engineer.	Total.
FIFTH CIRCLE—*cont.*	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
C. Establishments.								
I. Salaries—								
Non-voted—								
(*a*) Conservators	25,800	..	..	..	..	..	..	25,800
(*b*) Superior officers appointed by the Secretary of State.	..	..	14,142	15,145	2,878	..	2,125	34,290
II. Salaries—								
Voted—								
Superior officers appointed in India.	3,436	6,650	..	2,400	5,009	12,789	1,933	32,217
III. Establishment—								
Voted—								
(*a*) Subordinate forest and depot establishments.	5,857	30,244	37,427	47,745	39,100	40,291	3,121	2,03,785
(*b*) Office establishments ..	10,291	6,856	8,563	11,412	9,829	10,043	1,649	58,643
IV. Allowances, honoraria, etc.—								
(*a*) Travelling allowances—								
(1) Conservators	3,105	..	..	..	..	..	..	3,105
(2) Superior officers ..	1,639	1,516	2,532	4,817	2,371	2,403	743	15,521
(3) Subordinate forest and depot establishments.	1,175	2,216	4,100	4,228	3,152	3,229	889	18,989
(4) Office establishments ..	784	566	751	1,042	1,580	748	560	6,031
(*b*) Fixed travelling allowance, etc.—								
(1) Fixed travelling allowance and conveyance allowances.	224	1,613	3,264	2,756	3,576	1,975	70	13,478
(2) House-rent and other allowances.	..	529	124	— 5,644	471	..	..	— 4,520
(*c*) Honoraria	..	..	— 24	..	..	..	..	..
V. Contingencies—								
Voted—								
(*a*) Contract items—								
(1) Service postage and telegram charges.	804	476	682	1,214	1,251	1,066	50	5,543
(2) Other contract contingencies.	1,428	1,128	1,337	1,050	1,363	960	..	7,266
(*b*) Non-contract items—								
Non-voted—								
(1) Rates and taxes ..	129	52	98	120	163	181	50	793
Voted—								
(2) Pay of menials when non-contract.	..	..	..	..	..	..	..	..
(3) Rents	..	..	11	840	53	99	250	1,253
(4) Other contingencies.	21	252	204	674	9	19	721	1,900
Total, C, Establishments ..	54,693	52,098	73,211	87,299	70,805	73,803	12,161	4,24,070
Grand total of Expenditure, B and C.	68,002	68,227	1,33,597	2,58,853	1,01,808	96,598	81,188	8,08,273

Summary of expenditure for 'B' Conservancy and Works for the year 1923–24.

Budget heads.	Mangalore North.	Mangalore, South.	Wynaad.	Nilambur.	The Nilgiris.	Palghat.	Forest Research Officer.	Direction.	Total.
SIXTH CIRCLE.									
B. Conservancy and works.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Timber and other produce removed from the forests by Government Agency—									
(*a*) Timber ..	20,912	16,745	45,347	53,382	9,529	163	..	(*a*)— 7,715	1,33,363
(*b*) Firewood and charcoal.	558	1,407	..	..	14,178	79	..	..	16,222
(*c*) Bamboos ..	43	..	2,397	10,057	..	..	..	..	12,497
(*d*) Sandalwood ..	383	419	..	..	1,400	..	..	..	2,202
(*e*) Grass and other minor produce	..	..	5	170	757	..	..	..	932
II. Timber and other produce removed from the forests by consumers or purchasers.	1,153	794	2,431	1,970	77	5,132	..	..	11,757
III. Confiscated drift and waif-wood	13	2	..	..	..	40	..	..	55
V. Rent of leased forests and payments to shareholders in forests managed by Government ..	..	..	135	39	..	..	..	..	174
VI. Live-stock, stores, tools and plant—									
(*a*) Purchase of cattle.	..	..	4,497	1,669	3,364	..	..	..	9,530
(*b*) Feed and keep of cattle.	2,706	3,719	20,751	35,449	25,711	840	..	..	89,176
(*c*) Stores, tools and plant.	175	340	1,726	2,766	1,125	207	45	..	6,384
VII. Communications and buildings—									
(*a*) Roads and bridges.	1,548	758	9,209	2,182	6,502	6,390	..	..	26,589
(*b*) Buildings ..	9,658	5,092	2,559	12,147	(*b*)12,480	5,731	131	..	47,798
(*c*) Other works.	983	976	228	10	20	49	..	..	2,266
VIII. Demarcation, improvements and extension of forests—									
(*a*) Demarcation.	28	2	447	..	343	134	..	..	954
(b) Cost of settlement and compensation for land and rights.	..	..	..	..	..	..	..	..	..
(*c*) Survey	..	289	..	61	..	..	..	..	350
Local India	..	..	..	..	..	..	..	..	..
(*d*) Working-plans.	6	..	48	2,379	..	..	..	..	2,433
(*e*) Sowing and planting.	2,933	5,117	5,042	18,500	4,850	2,946	..	..	39,388
(*f*) Protection from fire.	1,893	2,349	1,129	4,023	2,399	3,719	..	..	15,542
(*g*) Other works.	50	1,857	104	..	359	..	..	..	2,370
IX. Miscellaneous—									
Non-voted—									
(*a*) Rates and taxes.	..	..	..	29	693	..	..	..	722

(*a*) Relates to the Forest Exploitation division.
(*b*) Includes Rs. 5,461 spent on Madras Forest College huts.

Summary of expenditure for 'B' Conservancy and Works for the year 1923-24—*cont.*

Budget heads.	Mangalore, North.	Mangalore, South.	Wynaad.	Nilambur.	The Nilgiris.	Palghat.	Forest Research Officer.	Direction.	Total.
SIXTH CIRCLE—*cont.* *B. Conservancy and works*—cont.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
IX. Miscellaneous—cont									
Voted—(*b*) Law charges	..	1	362	..	..	..	..	..	363
(*c*) Other charges.	60	190	189	12	4,628	1	1,780	..	6,860
Total ..	43,102	40,057	96,606	1,44,845	88,115	25,461	1,956	7,715	4,32,727
I. Pay of officers (non-voted—									
(*a*) Conservators ..	..	..	..	..	..	..	..	23,583	23,583
(*b*) Superior officers appointed by the Secretary of State (voted).	..	16,816	13,809	10,472	19,900	12,269	9,878	7,435	90,579
II. Superior officers appointed in India.	6,134	4,399	1,502	13,055	..	2,712	4,940	..	32,742
III(*a*) Subordinate forest and depot establishment.	26,189	22,976	23,375	21,700	33,757	21,666	2,296	503	1,52,512
(*b*) Office establishment.	7,746	7,021	9,286	9,321	9,031	7,191	2,105	9,304	61,005
IV. Allowances, honoraria, etc—									
(*a*) Travelling allowance—									
(1) Conservators.	..	..	..	..	..	..	..	3,989	3,989
(2) Superior officers.	1,375	3,453	3,151	3,705	2,738	2,583	2,375	1,718	21,098
(3) Subordinate forest and depot establishment.	2,631	2,409	3,532	2,170	5,049	1,836	1,068	153	18,848
(4) Office establishment.	632	826	1,059	1,110	1,343	660	460	1,072	7,162
(b) Fixed travelling allowance, etc—									
(1) Fixed travelling allowance and conveyance allowance, etc.	1,600	1,159	1,792	2,139	1,551	1,323	233	..	9,797
(2) House-rent and other allowance.	..	..	4,857	205	7,894	..	56	2,883	15,895
V. Contingencies—									
(*a*) Contract group—									
(1) Service postage and telegrams.	902	1,004	967	748	1,036	452	152	903	6,164
(2) Other contract contingencies.	731	515	940	1,677	1,292	909	109	1,181	7,354
(*b*) Non-contract group—									
(1) Non-voted rates and taxes.	..	..	..	57	473	136	52	12	730
(2) Pay of menials when non-voted.	..	..	..	..	..	..	..	..	..
(3) Rents	..	26	..	138	..	36	..	..	200
(4) Other contingencies.	108	80	226	458	763	489	9	121	2,254
Total, C. Establishment and Contingencies.	48,048	60,684	64,496	66,955	8[illegible],827	52, 2	23,733	52,907	4,53,912
Total of B and C ..	91,150	1,00,741	1,61,102	2,11,800	1,73,242	77,723	25,689	15,192	8,86,639

Summary of receipts and expenditure during 1923-24 for each circle and for the Presidency compiled in the Chief Conservator's office from the Conservators' statements.

Budget heads.	First circle, including Agency divisions and Parlakimedi maliahs.	Second circle.	Third circle.	Fourth circle.	Fifth circle.	Sixth circle.	Forest College, Coimbatore.	Grand total, Presidency	
								1923-24.	1922-23.
RECEIPTS.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Timber and other produce removed from the forests by Government Agency—									
(a) Timber	1,38,680	40,691	9,026	835	2,11,087	4,83,687	147	8,84,153	8,40,679
(b) Firewood and charcoal	6,090	7,184	1,930	520	166	16,245	120	32,255	57,657
(c) Bamboos	215	18,737	6	2	10	11,754	..	30,724	27,695
(d) Sandalwood	..	..	22	3,55,363	4,17,908	27,919	..	8,01,212	6,05,358
(e) Grass and other minor produce	73	13,840	7,538	121	1,722	1,271	23	24,588	29,233
Total, I ..	1,45,058	80,452	18,522	3,56,841	6,30,893	5,40,876	290	17,72,932	15,60,622
II. Timber and other produce removed from the forests by consumers or purchasers—									
(a) Timber	57,325	61,374	73,232	65,891	46,255	84,109	..	3,88,186	3,43,047
(b) Firewood and charcoal	1,34,961	60,118	1,30,639	72,447	2,63,458	98,343	..	7,59,966	7,26,498
(c) Bamboos	1,31,875	30,559	29,887	95,505	34,695	12,977	..	3,34,998	3,75,919
(d) Grazing and fodder grass	53,972	2,62,207	2,19,643	1,96,015	1,33,515	36,667	..	9,02,019	9,24,092
(e) Other minor produce	57,364	1,56,871	1,31,085	1,35,361	99,901	24,686	..	6,05,268	6,34,075
(f) Tree-owners' fees or trees tapped	19,361	74,103	27,209	6,505	68	862	..	1,28,108	1,21,697
(g) Other items	..	..	70	7,921	..	..	..	7,991	789
(h) Commutation fees	..	..	..	438	..	..	..	438	1,679
Total, II ..	4,54,358	6,45,232	6,11,765	5,80,083	5,77,892	2,57,644	..	31,26,974	31,27,796
III. Confiscated forest produce drift and waif wood ..	5,083	2,686	2,847	2,133	1,972	898	..	15,619	21,038
IV. Forest not managed by Government—									
(a) Shared and private forests	..	..	..	..	..		..	..	..

V. Miscellaneous—									
(a) Fines and forfeitures	22,375	81,061	62,144	85,628	39,294	25,050	2		3,19,387
(b) Other sources	16,701	14,713	7,268	20,041	69,163	62,243	62,277	2,52,406	3,00,735
Total, V ..	39,076	95,774	69,412	1,05,669	1,08,457	87,293	62,279	5,67,960	6,20,122
Total ..	6,43,575	8,24,144	7,02,546	10,44,726	13,19,214	8,86,711	62,569	54,83,485	53,29,578
Deduct refunds—Voted ..	2,970	10,744	6,399	21,348	2,442	3,760	29	47,692	49,104
Grand Total, Receipts ..	6,40,605	8,13,400	6,96,147	10,23,378	13,16,772	8,82,951	62,540	54,35,793	52,80,474
	+(a)35,541	..	..	..	..	+(b)14,598	..	+ 50,139	— 7,517
Net receipts ..	6,76,146	8,13,400	6,96,147	10,23,378	13,16,772	8,97,549	62,540	54,85,932	52,72,957
	..	..	..	..	..	..	..	(c) 63	..
	* + 1,539	* — 567	* — 3	* + 1	* — 1	* — 3	* + 2	* + 968	..
	6,77,685	8,12,833	6,96,144	10,23,379	13,16,771	8,97,546	62,542	54,86,963	52,72,957
EXPENDITURE.									
B. Conservancy and Works.									
I. Timber and other produce removed from the forests by Government Agency—									
(a) Timber	54,684	9,394	3,631	486	93,569	1,38,363	..	3,00,127	3,16,107
(b) Firewood and charcoal	1 114	1,393	226	129	..	16,222	..	19,084	25,571
(c) Bamboos	87	10,268	..	..	..	12,497	..	22,852	25,822
(d) Sandalwood	..	..	167	37,061	36,881	2,202	..	76,311	47,742
(e) Grass and other minor produce	19	5,923	7,248	302	277	982	..	14,701	13,953
Total, B-I ..	55,904	26,978	11,272	37,978	1,30,727	1,70,216	..	4,33,075	4,29,195
II. Timber and other produce removed from the forests by consumers or purchasers.	28,375	34,655	39,245	26,136	27,349	11,557	..	1,67,317	1,17,598
III. Confiscated drift and waif wood	326	61	622	26	45	55	..	1,135	1,244
IV. Forests not managed by Government—									
(a) Shared and private forests	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government.	483	..	..	2	3,081	174	..	3,740	4,487

* Added or deducted as per Accountant-General's audited figures.

(a) Receipts for the Parlakimedi Maliahs, the Golgonda and the Balliguda agencies.

(b) Receipts for the Exploitation Unit division.

(c) A.—General direction.

Summary of receipts and expenditure during 1923-24 for each circle and for the Presidency compiled in the Chief Conservator's office from the Conservators' statements—*cont.*

Budget heads.	First Circle, including Agency divisions and Parlakimedi maliahs.	Second Circle.	Third Circle.	Fourth Circle.	Fifth Circle.	Sixth Circle.	Forest College, Coimbatore.	Grand total, Presidency.	
								1923-24.	1922-23.
EXPENDITURE—*cont.*									
B. Conservancy and Works—cont.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
VI. Live-stock, stores, tools and plant—									
(*a*) Purchase of cattle	..	..	..	..	7,781	9,530	..	17,311	16,232
(*b*) Feed and keep of cattle	1,845	1,776	27	..	42,710	89,176	..	1,35,534	1,75,812
(*c*) Stores, tools and plant	11,638	1,556	3,899	1,631	6,527	6,384	3,713	35,348	97,222
Total, B-VI ..	13,483	3,332	3,926	1,631	57,018	1,05,090	3,713	1,88,193	2,88,766
VII. Communications and buildings—									
(*a*) Roads and bridges	6,841	18,128	10,153	12,971	1,04,888	26,589	2,747	1,82,317	2,37,497
(*b*) Buildings	18,115	16,371	27,618	18,982	20,617	47,798	5,325	1,54,826	1,77,082
(*c*) Other works	602	1,738	3,499	1,737	1,195	2,266	1,100	12,137	14,260
Total, B-VII ..	25,558	36,237	41,270	33,690	1,26,700	76,653	9,172	3,49,280	4,28,839
VIII. Demarcation, improvement and extension of forests—									
(*a*) Demarcation	807	1,184	1,335	1,845	874	954	..	6,999	11,067
(*b*) Cost of forest settlement compensation for land and rights.	..	— 18	4,561	978	..	..	..	5,521	4,108
(*c*) Surveys (1) Local	..	985	1	..	..	350	..	1,336	8,511
(*c*) Surveys (2) India	..	..	..	..	..	..	..	..	..
(*d*) Working-plans	..	195	..	..	1,987	2,433	..	4,615	276
(*e*) Sowing and planting	884	9,972	1,985	3,001	19,149	39,388	3,349	77,728	78,456
(*f*) Protection from fire	16,815	3,582	10,175	6,381	6,317	15,542	..	58,812	78,778
(*g*) Other works	2,125	2,477	5,124	1,219	7,415	2,370	..	20,730	94,401
Total, B-VIII ..	20,631	18,377	23,181	13,424	35,742	61,037	3,349	1,75,741	2,75,597

X. Miscellaneous—									
Non-voted—									
(a) Rates and taxes	126	..	10	84	252	722	..	1,194	645
Voted—									
(b) Law charges	18	51	40	92	92	363	1,043	1,699	200
(c) Other charges	579	6,687	500	153	3,197	6,860	..	17,976	16,338
Total, B-IX ..	723	6,738	550	329	3,541	7,945	1,043	20,869	17,183
Total, B. Conservancy and Works ..	1,45,483	1,26,378	1,20,066	1,13,216	3,84,203	4,32,727	17,277	13,39,350	15,62,909
	+(a) 949	..	..	..	..	(d)1,17,362	..	949	..
	+(b) 5,249	..	..	..	..	..	..	5,249	..
	+(c) 1,676	..	..	..	..	..	..	1,676	..
								1,17,362	..
	1,53,357	1,26,378	1,20,066	1,13,216	3,84,203	5,50,089	17,277	14,64,586	..
	+ *1,134	*— 15	*+ 1	*+ 4	*+ 2	*+ 14	..	*+ 1,140	..
	1,54,491	1,26,363	1,20,067	1,13,220	3,84,205	5,50,103	17,277	14,65,726	..
								(e) 1,500	..
								14,67,226	15,62,909
C. Establishment.									
I. Pay of officers—									
Non-voted—									
(a) Conservators	21,924	18,894	31,118	22,781	25,800	23,583	..	1,44,100	1,40,802
(b) Superior officers appointed by the Secretary of State.	28,144	14,460	19,985	24,304	34,290	90,579	36,873	2,48,635	2,69,173
Total, C-I ..	50,068	33,354	51,103	47,085	60,090	1,14,162	36,873	3,92,735	4,09,975
II. Pay of officers—									
Voted—									
Superior officers appointed in India ..	23,291	63,328	43,780	44,194	32,217	32,742	23,632	2,63,184	2,61,998
III. Establishment—									
Voted—									
(a) Subordinate Forest and Depot establishments.	1,52,995	2,44,455	2,74,655	1,94,167	2,03,785	1,52,512	10,417	12,32,986	12,26,222
(b) Office establishments	56,212	71,883	69,872	66,603	58,643	61,005	8,731	3,92,949	3,88,710
Total, C-III ..	2,09,207	3,16,338	3,44,527	2,60,770	2,62,428	2,13,517	19,148	16,25,935	16,14,932

* Added or deducted as per Accountant-General's figures.

(a) Expenditure for the Golgonda Agency.
(b) Expenditure for the Parlakimedi Maliahs.
(c) Expenditure for the Balliguda Agency.
(d) Expenditnre for the Exploitation division.
(e) Expenditure for the Chief Forest Engineer—Stores, tools, etc., shown against the Chief Conservator as per Accountant-General's figures.

Summary of receipts and expenditure during 1923-24 for each circle and for the Presidency compiled in the Chief Conservator's office from the Conservators' statements—*cont.*

Budget heads.	First Circle, including Agency divisions and Parlakimedi maliahs.	Second Circle.	Third Circle.	Fourth Circle.	Fifth Circle.	Sixth Circle.	Forest College, Coimbatore.	Grand total, Presidency. 1923-24.	Grand total, Presidency. 1922-23.
EXPENDITURE—*cont.*									
C. *Establishment*—cont.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
IV. Allowances, Honoraria, etc.—									
(*a*) Travelling allowance—									
(1) Conservators	3,484	3,815	3,481	2,222	3,105	3,989	..	20,096	21,243
(2) Superior officers	10,838	14,923	14,204	9,443	15,521	21,098	7,646	93,673	1,05,440
(3) Subordinate Forest and Depot establishments.	18,606	24,301	21,791	20,098	18,989	18,848	4,691	1,27,324	2,54,569
(4) Office establishments	7,057	9,036	7,824	6,141	6,031	7,162	1,809	45,060	55,027
(*b*) Fixed travelling allowance, etc.—									
(1) Fixed travelling allowance and conveyance allowance.	1,760	18,611	24,740	14,162	13,478	9,797	22	82,570	61,969
(2) House-rent and other allowances ..	10,105	..	..	..	— 4,520	15,895	..	21,480	
(*c*) Honoraria--	..	..	..	..	— 24	..	859	835	..
Total, C-IV ..	51,850	76,686	72,040	52,066	52,580	76,789	15,027	3,91,038	4,98,248
V. Contingencies—									
(*a*) Contract group--									
(1) Service postage and telegram charges.	4,602	5,588	5,335	5,366	5,543	6,164	..	32,598	32,037
(2) Other contract contingencies ..	6,596	9,442	11,282	9,607	7,266	7,354	..	51,547	63,859
(*b*) Non-contract groups—									
Non-voted—									
(1) Rates and taxes	1,927	800	497	950	793	730	11	4,808	4,775
(2) Pay of menials..	..	..	..	..	..	..	2,537	2,537	..
(3) Rents	666	999	729	458	1,253	200	..	4,305	4,596
(4) Other contingencies	1,443	7,048	2,068	1,733	1,900	2,254	8,500	24,946	28,988
Total, C-V ..	14,334	23,877	19,911	18,114	16,755	16,702	11,048	1,20,741	1,34,255
Total, C. Establishment ..	3,48,750	5,07,583	5,31,361	4,22,229	4,24,070	4,53,912	1,05,728	27,93,633	29,19,408
	+ (*a*)4,591	..	..	..	..	+(*c*)44,362	..	4,591	+ 23,028
	+(*b*)39,157	..	..	..	..	..	..	39,157	..

Grand Total, C. Establishment ..	3,92,498 +* 12,119	5,07,583 ..	5,31,361 +* 1	4,22,229 *+ 13	4,24,070 * — 1	4,98,274 * + 11	1,05,728 * — 10	28,81,743 * + 12,133	29,42,436 ..
	4,04,617	5,07,583	5,31,362	4,22,242	4,24,069	4,98,285	1,05,718	28,93,876 (*d*) 62,076 (*e*) 29,621 (*f*) — 3,966 29,81,607	.. ..
Total, Expenditure B and C ..	5,59,108	6,33,946	6,51,429	5,35,462	8,08,274	10,48,338	1,22,995	44,48,833 (*g*) 1,17,772 (*h*) 29,234 (*i*) 6,216 (*j*) 27,459 46,29,514	45,47,790 (*g*) 2,03,307 (*e*) 17,893 .. (*j*) 20,473 47,89,463

8. Forests—A. General Direction.

	Rs.
Non-Voted—	
Chief Conservator	41,362
Rates and taxes	396
Voted—	
Gazetted officers	7,597
Establishment	18,709
Travelling allowance	7,586
Service postage and telegram charges.	2,030
Other contract items	1,624
Non-contract items	38,468
Total ..	1,17,772

* Added or deducted as per Accountant-General's figures.

(*a*) Expenditure for the Golgonda Agency.
(*b*) Do. Parlakimedi Maliahs.
(*c*) Do. Exploitation division.
(*d*) Do Forest Engineering Branch.
(*e*) Expenditure on the Special Panchayat staff.
(*f*) Deductions reported by the Accountant-General.
(*g*) General direction.
(*h*) Investment on Government Commercial undertakings.
(*i*) Loss on Government Commercial undertakings.
(*j*) Loss or gain by exchange transactions with England.

ANNUAL FORM No. 81.

Forest Department, Madras Presidency.

Outstandings and liabilities on account of contractors and disbursers for the year 1923–24.

District.	Department debtor.			Department creditor.			Balance due.	
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To department (outstandings).	By department (liabilities).
First Circle.		Rs. A. P.		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Direction	..	1,212 9 6	..	24 4 3	1,230 10 0	1,254 14 3	42 4 9	..
Ganjām	..	1,52,982 7 11	..	672 6 11	1,53,697 10 11	1,54,370 1 10	1,387 9 11	..
Vizagapatam	..	33,431 5 8	..	164 12 11	33,473 13 3	33,638 10 2	207 4 6	..
Lower Gōdāvari	..	85,497 7 1	..	109 12 1	87,384 15 0	87,494 11 1	1,997 4 0	..
Kistna	..	27,624 15 9	..	255 8 1	27,540 11 2	27,796 3 3	171 3 6	..
Parlakimedi Maliah	..	25,921 14 11	..	446 11 7	25,568 10 0	26,015 5 7	93 6 8	..
Golkonda Agency	..	8,150 6 0	..	45 8 0	8,135 0 0	8,180 8 0	30 2 0	..
Upper Gōdāvari	..	83,565 1 6	..	705 14 11	83,481 4 2	84,187 3 1	622 1 7	..
Total ..	..	4,18,386 4 4	..	2,424 14 9	4,20,512 10 6	4,22,937 9 3	4,551 4 11	..
Second Circle.								
Direction	..	1,801 2 9	..	9 4 7	1,839 13 0	1,849 1 7	47 14 10	..
Guntūr	..	69,049 8 7	..	972 14 5	68,180 8 4	69,153 6 9	103 14 2	..
Kurnool, East	..	86,251 10 7	..	1,564 7 5	85,061 2 4	86,625 9 9	373 15 2	..
Do. South	..	81,246 11 7	..	948 3 1	81,206 6 3	82,154 9 4	907 13 9	..
Do. West	..	1,24,017 1 7	..	869 6 2	1,24,145 7 8	1,25,014 13 10	997 12 3	..
Bellary	..	49,955 6 11	..	238 13 8	49,959 6 7	50,198 4 3	242 13 4	..
Anantapur	..	60,620 12 8	..	316 0 3	60,359 2 6	60,675 2 9	54 6 1	..
Total ..	..	4,72,942 6 8	..	4,919 1 7	4,70,751 14 8	4,75,671 0 3	2,728 9 7	
Third Circle.								
Direction	..	2,213 13 3	..	20 14 6	2,239 3 3	2,260 1 9	46 4 6	..
Cuddapah, North	..	54,562 14 7	..	372 11 11	54,431 11 8	54,804 7 7	241 9 0	..
Do. South	..	66,479 3 9	..	723 1 5	65,798 2 1	66,521 3 6	41 15 9	..
Do. West	..	71,083 11 3	..	183 14 10	71,225 8 11	71,409 7 9	325 12 6	..

Nellore	89,771 8 8	..	132 15 2	90,059 13 1	90,192 12 3	421 3 7	..
Chittoor	1,06,704 12 0	..	382 12 9	1,07,136 13 9	1,07,519 10 6	814 14 6	..
Vellore, North	49,583 1 6	..	897 0 11	48,906 8 2	49,803 9 1	220 7 7	..
Chingleput	45,161 2 6	..	86 2 0	45,358 12 0	45,444 14 0	283 11 6	..
Total	4,85,560 3 6	..	2,799 9 6	4,85,156 8 11	4,87,956 2 5	2,295 14 11	..
Fourth Circle.							
Direction	937 11 1	..	43 9 0	951 5 6	994 14 6	57 3 5	..
Vellore, South	63,597 2 10	..	68 10 7	63,717 5 1	63,785 15 8	188 12 10	..
Do. West	59,720 6 4	..	326 1 9	59,518 5 11	59,844 7 8	124 1 4	..
Salem, East	59,086 8 7	..	425 6 7	58,931 2 6	59,356 9 1	270 0 6	..
Do. North	83,300 7 2	..	1,081 9 5	83,453 10 6	84,535 3 11	1,234 12 9	..
Do. Central	51,709 14 1	..	954 6 9	51,469 3 5	52,423 10 2	713 12 1	..
Do. South	70,756 9 11	..	1,175 13 2	70,168 13 8	71,344 10 10	588 0 11	..
Forest Engineer's Office ..	38,991 12 11	..	1,076 6 6	38,607 8 6	39,683 15 0	692 2 1	..
Tanjore	114 0 0	..	..	114 0 0	114 0 0	..	..
Total	4,28,214 8 11	..	5,151 15 9	4,26,931 7 1	4,32,083 6 10	3,868 13 11	
Fifth Circle.							
Direction	29,251 13 1	..	527 5 10	29,264 9 0	29,791 14 10	540 1 9	..
Madura	98,628 12 4	..	1,217 10 3	97,638 4 1	98,855 14 4	227 2 0	..
Tinnevelly cum Ramnad ..	85,747 10 6	..	486 2 11	86,322 3 9	86,808 6 8	1,060 12 2	..
Kollegal	59,894 4 7	..	680 11 4	59,350 1 6	60,030 12 10	136 8 3	..
Coimbatore, North	1,13,769 6 7	..	1,576 4 3	1,12,752 11 8	1,14,328 15 11	559 9 4	..
Do. South	2,53,750 0 6	..	5,046 9 2	2,54,090 14 0	2,59,137 7 2	5,387 6 8	..
Total	6,41,041 15 7	..	9,534 11 9	6,39,418 12 0	6,48,953 7 9	7,911 8 2	..
Sixth Circle.							
Direction	1,535 8 11	..	26 7 0	1,892 4 0	1,918 11 0	383 2 1	..
The Nilgiris	1,24,962 1 11	..	1,631 14 4	1,24,251 5 0	1,25,883 3 4	921 1 5	..
Wynad	93,834 13 8	..	552 14 1	93,670 8 2	94,223 6 3	388 8 7	..
Nilambur	1,30,418 7 6	..	4,731 2 4	1,31,063 2 10	1,35,794 5 2	5,375 13 8	..
Mangalore, North	1,06,302 0 8	..	530 6 2	1,06,343 15 6	1,06,874 5 8	572 5 0	..
Do. South	86,917 2 7	..	385 11 2	88,094 13 8	88,480 8 10	1,563 6 3	..
Forest Research Office	5,620 12 11	..	164 7 7	5,715 1 0	5,879 8 7	258 11 8	..
Palghat	65,222 11 3	..	1,083 10 8	65,382 7 11	66,466 2 7	1,243 7 4	..
Net total VI Circle excluding Forest Exploitation Office.	6,14,813 11 5	..	9,106 9 4	6,16,413 10 1	6,25,520 3 5	10,706 8 0	..
Forest Exploitation Office ..	1,13,017 3 5	..	170 3 0	1,29,784 2 10	1,29,954 5 10	16,937 2 5	..
Grand total, Presidency ..	31,73,976 5 10	..	34,107 1 8	31,88,969 2 1	32,23,076 3 9	49,099 13 11	..

ACCOUNTANT-GENERAL'S OFFICE,
MADRAS, *1st September* 1924.

J. H. G. WILLIAMS,
Deputy Accountant-General.

ANNUAL FORM No. 82.

Forest Department, Madras Presidency.

Revenue received and outstandings on account of revenue during 1923–24.

District.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the department at end of year.
		RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
First Circle.						
Direction	Timber and other forest produce.	..	1,418 0 0	1,418 0 0	1,418 0 0	..
Ganjam	Do.	2,788 2 3	184,068 8 6	186,856 10 9	184,935 0 0	1,921 10 9
Vizagapatam	Do.	4,705 15 0	49,339 9 0	54,045 8 0	49,755 0 0	4,290 8 0
Gōdāvari, Upper	Do.	24,775 0 3	68,462 3 11	93,237 4 2	88,874 0 0 (a) 27 7 2 (b) 175 0 0	4,160 13 0
Do. Lower	Do.	1,478 4 0	2,36,674 0 0	2,38,152 4 0	2,32,665 0 0	5,487 4 0
Kistna	Do.	3,285 3 5	80,910 15 7	84,196 3 0	83,583 0 0	613 3 0
	Total ..	37,032 8 11	6,20,873 5 0	6,57,905 13 11	6,41,230 0 0 (a) 27 7 2 (b) 175 0 0	16,473 6 9
Second Circle.						
Bellary	Timber and other forest produce.	17,515 14 1	1,33,381 1 2	1,50,896 15 3	1,15,950 0 0	34,946 15 3
Anantapur	Do.	33,315 11 10	1,02,561 0 2	1,35,876 12 0	1,35,336 0 0	540 12 0
Guntūr	Do.	7,419 7 0	2,14,915 13 0	2,22,335 4 0	2,07,889 0 0 (a) 14 0 0	14,432 4 0
Kurnool, East	Do.	6,027 0 0	91,185 1 8	97,212 1 8	93,872 0 0 (a) 3,160 0 0	180 1 8
Do. South	Do.	1,236 4 0	1,15,588 12 0	1,16,825 0 0	1,16,716 0 0	109 0 0
Do. West	Do.	3,421 0 0	1,63,985 12 4	1,67,416 12 4	1,54,369 0 0 (a) 99 0 0	12,948 12 4
Direction	Do.	..	12 0 0	12 0 0	12 0 0	..
	Total ..	68,945 4 11	8,21,629 8 4	8,90,574 13 3	8,24,144 0 0 (a) 3,273 0 0	(b) 63,157 13 3

Third Circle.								
Direction	Timber and other forest produce.	..	3 12 10	3 12 0	3 12 0	..		
Cuddapah, North	Do.	4,985 1 4	62,061 7 8	67,046 9 0	57,413 3 0	9,633 6 0		
Do. South	Do.	19,655 13 0 (a)—2,095 8 0	48,939 3 2	66,499 8 2	53,135 5 7	13,364 2 7		
Do. West	Do.	12,012 0 0	69,891 14 4	81,903 14 4	74,664 6 4 + 2,900 0 0	4,339 8 0		
Nellore	Do.	98,568 6 7 (b) — 87 0 3	92,855 14 8	1,91,337 5 0	1,86,558 3 5 + 190 0 0	4,589 1 7		
Chingleput	Do.	5,233 11 8	60,758 0 3	65,991 11 11	62,089 10 11	3,902 1 0		
Chittoor	Do.	1,250 0 0	1,50,184 3 9	1,51,434 3 9	1,45,649 7 5	5,784 12 4		
Vellore, North	Do.	13,264 3 0	1,28,582 15 5	1,41,847 2 5	1,23,031 7 1	18,815 11 4		
Fourth Circle.	Total ..	1,52,786 11 4	6,13,277 7 3	7,66,064 2 7	7,02,545 7 9 (c)+ 3,090 0 0	60,428 10 10		
Direction	Timber and other forest produce.	..	2,189 0 0	2,189 0 0	2,189 0 0	..		
Vellore, South	Do.	11,158 6 7	1,86,004 3 4	1,99,162 9 11	1,92,961 0 0 (a) 4,711 4 5	1,490 5 6		
Do. West	Do.	2,929 5 10	1,13,538 15 10	1,16,468 5 8	1,13,183 0 0 (a) 2,148 9 4	1,136 12 4		
Salem, East	Do.	3,006 2 2	1,38,353 3 7	1,41,359 5 9	1,40,424 0 0	935 5 9		
Do. North	Do.	6,508 12 0	2,72,233 4 0	2,78,742 0 0	2,65,840 0 0	12,902 0 0		
Do. Central	Do.	12,532 2 11	1,02,513 9 10	1,15,045 12 9	1,06,357 0 0 (a) 4,865 0 5	3,823 12 4		
Do. South	Do.	2,763 5 7	1,96,837 10 11	1,99,601 0 6	1,97,562 0 0	2,039 0 6		
Forest Engineer	Do.	..	9 0 0	9 0 0	9 0 0	..		
Tanjore	Do.	..	26,331 0 0	26,331 0 0	2,6331 0 0	..		
	Total ..	38,898 3 1	10,40,009 15 6	10,78,908 2 7	10,44,856 0 0 (a) 11,724 14 2	22,827 4 5		

Note for First Circle.
(a) Eliminated on account of erroneous demand.
(b) Written off the accounts.
NOTE.—Out of total outstanding of Rs. 16,473-6-9, the amount actually due on or before 31st March 1924 was Rs. 15,878-6-9.

Note for Second Circle.
(a) Written off.
(b) Out of the balance, a sum of Rs. 10,278-8-0 is pending adjustment to Revenue from earnest money deposits; Rs. 5,291-14-4 fell due within the year and the balance is due in the current year and after.

Note for Third Circle.
(a) Written off as irrecoverable in G.O. No. 1779, Development, communicated in Chief Conservator's Proceedings No. 1026, Revenue, dated 12th December 1923.
(b) Written off as irrecoverable with reference to Chief Conservator's Proceedings No. 51, dated 7th February 1924, in G.O. Mis. No. 163, Development, dated 29th January 1924.
(c) Rupees 3,090 collected in Ganjam district, First Circle.

Note for Fourth Circle.
(a) Amounts written off the accounts.

Revenue received and outstandings on account of revenue during 1923-24—*cont.*

District.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the department at end of year.
Fifth Circle.		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Kollegal	Timber and other forest produce.	666 8 0	1,80,674 2 2	1,81,340 10 2	1,79,089 15 9 (a) 7 8 0	2,252 2 5
Coimbatore, North	Do.	35,339 15 8	4,45,562 0 4	4,80,902 0 0	4,53,835 14 6	27,066 1 6
Do. South	Do.	67,349 0 0	3,03,776 2 10	3,71,125 2 10	3,17,331 5 6 (a) 3,281 12 0	50,512 1 4
Madura	Do.	18,298 9 11	1,71,855 15 7	1,90,154 9 6	1,65,560 0 7 (a) 1,820 7 0	22,774 1 11
Tinnevelly	Do.	19,441 2 9	1,95,118 8 4	2,14,559 11 1	2,07,733 9 1	6,826 2 0
Direction	Do.	..	120 10 10	120 10 10	120 10 10	..
Forest Engineer	Do.	..	109 0 10	109 0 10	109 0 10	..
Sixth Circle.	Total ..	1,41,095 4 4	12,97,216 8 11	14,38,311 13 3	(b) 13,23,771 9 1 (a) 5,109 11 0	1,09,430 9 2
Mangalore, North	Timber and other forest produce.	5,540 3 1	1,29,944 4 3	1,35,484 7 4	1,25,409 3 0	10,075 4 4
Do. South	Do.	11,012 7 3	88,848 4 1	99,860 11 4	91,089 4 7 (a) 2,834 3 0	5,937 3 9
Wynaad	Do.	97,662 7 0	1,34,963 7 11	2,32,625 14 11	1,37,245 4 4 (a) 38,853 3 7	56,527 7 0
Nilambur	Do.	44,489 9 2	2,89,668 15 2	3,34,158 8 4	3,07,576 7 6	26,582 0 10
The Nilgiris	Do.	18,152 1 3	1,05,136 5 0	1,23,288 6 3	1,01,430 11 2 (a) 72 6 4	21,785 4 9
Palghat	Do.	48,023 10 6	38,662 2 4	86,685 12 10	85,382 11 8	1,303 1 2
Forest Research Office	Do.	..	28 8 0	28 8 0	28 8 0	..
Direction	Do.	..	29 6 10	29 6 10	29 6 10	..
	Total ..	2,24,880 6 3	7,87,281 5 7	10,12,161 11 10	8,48,191 9 1 (a) 41,759 12 11	1,22,210 5 10
Exploitation Division	Timber and other produce.	7,069 4 0	67,686 14 1	74,756 2 1	53,137 6 0	21,618 12 1
	Grand total, Presidency ..	6,70,707 10 10	52,47,975 0 8	59,18,682 11 6	55,03,035 13 2	4,15,646 14 4

Note for Fifth Circle.
(a) Written off the accounts.
(b) Includes Rs. 5,414 realized in the IV and VI Circles and excludes Rs. 855 pertaining to the same circles.
Note.—Of the total outstandings of Rs. 1,09,430-9-2, the amount actually due on or before 31st March 1924 was Rs. 40,359-12-1.

Note for Sixth Circle.
(a) Amount written off or removed from demand owing to cancellation of sales an allowance made for remissions sanctioned and rejections of timber by contractors.
Note.—Out of the total outstandings of Rs. 1,22,210-5-10, the amount actually due on or before 31st March 1924 was Rs. 1,14,572-4-3

Annual Form No. 83.

Forest Department, Madras Presidency.

Financial results for the year 1923-24.

District.	Timber and other produce removed from the forests by Government Agency.		Other revenue.		Formation, protection and improvement of forests.	Total.	
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.
First Circle.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ganjam ..	99,414	76,399	86,710	74,501	34,853	1,86,124	1,85,753
Vizagapatam ..	1,546	1,466	48,301	41,308	7,204	49,847	49,978
Godavari, Upper ..	39,546	34,814	49,781	52,639	22,423	89,327	1,09,876
Do. Lower ..	4,391	10,473	2,30,037	78,787	13,538	2,34,428	1,02,798
Kistna	161	1,909	83,688	42,488	1,431	83,849	45,828
Total ..	1,45,058	1,25,061	4,98,517	2,89,723	79,449	6,43,575 (a) — 2,345 (b) 35,541	4,94,238 (b) 51,622
						6,76,771	5,45,855
Second Circle.							
Bellary	71	10	1,13,569	52,784	18,031	1,13,640	70,825
Anantapur	25	..	1,35,275	63,858	20,716	1,35,300	84,574
Guntur	71	380	2,03,785	76,659	24,356	2,03,856	1,01,395
Kurnool, East ..	24,136	10,322	69,565	64,898	27,169	93,701	1,02,389
Do. South ..	10,667	1,534	1,05,685	74,359	29,781	1,16,352	1,05,674
Do. West ..	45,401	14,732	1,08,728	1,11,031	43,341	1,54,129	1,69,104
Total ..	80,371	26,978	7,36,607	4,43,589	1,63,394	8,16,978	6,33,961
Third Circle.							
Cuddapah, North ..	162	156	57,251	54,996	19,839	57,413	74,991
Do. South ..	9,124	3,111	44,011	60,879	27,697	53,135	91,687
Do. West ..	147	943	74,517	68,845	24,258	74,664	94,046
Nellore	7,051	5,896	1,79,507	82,085	31,325	1,86,558	1,19,306
Chingleput	38	23	62,052	48,540	19,405	62,090	67,968
Chittoor	965	1,068	1,44,689	97,487	37,669	1,45,654	1,36,224
Vellore, North ..	1,034	75	1,21,998	50,646	16,484	1,23,032	67,205
Total ..	18,521	11,272	6,84,025	4,63,478	1,76,677	7,02,546 (c) — 4,517	6,51,427
						6,98,029	
Fourth Circle.							
Vellore, South ..	54,935	6,947	1,38,042	83,147	(d) 23,261	1,92,977	1,13,355
Do. West ..	51,203	11,515	61,986	57,436	19,377	1,13,189	88,328
Salem, East ..	8,781	1,634	1,31,650	69,773	7,621	1,40,431	79,028
Do. North ..	2,07,473	38,238	58,373	48,028	6,868	2,65,846	93,134
Do. Central ..	9,072	4,088	97,291	60,285	8,590	1,06,363	72,963
Do. South ..	23,227	4,664	1,74,342	71,870	10,818	1,97,569	87,352
Tanjore ..	..	..	26,331	1,348	273	26,331	1,621
Total ..	3,54,691	67,086	6,88,015	3,91,887	76,808	(e) 10,42,706 (a) — 17,769	5,35,781
						10,24,937	

(a) Refunds and drawbacks.
(b) Receipts and charges relating to the Parlakimedi Maliahs, Golgonda and the Balliguda Agencies.
(c) Refunds.
(d) Includes charges incurred by the Forest Engineer on road works in the Javadis.
(e) This excludes Rs. 2,150 being sandalwood revenue realized for other circles.

Financial results for the year 1923–24—*cont.*

District.	Timber and other produce removed from the forests by Government Agency.		Other revenue.		Formation, protection and improvement of forests.	Total.	
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.
Fifth Circle.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Kollegal ..	1,05,056	12,782	73,995	59,551	9,448	1,79,051	81,781
Coimbatore, North ..	3,14,332	65,045	1,39,257	70,043	12,371	4,53,589	1,47,459
Do. South ..	2,03,065	1,73,846	1,14,113	35,185	1,32,251	3,17,178	3,41,282
Madura ..	7,760	4,622	1,56,946	84,271	26,317	1,64,706	1,15,210
Tinnevelly	1,094	9,788	2,06,485	89,864	22,869	2,07,579	1,22,541
Total ..	6,31,307	2,66,083	6,90,796	3,38,914	2,03,276	13,22,103	8,08,273
Sixth Circle.							
Mangalore, North ..	36,304	34,952	89,108	37,788	24,135	1,25,412	96,875
Do. South ..	48,938	40,706	42,155	35,765	30,624	91,093	1,07,095
Wynaad	1,04,010	1,17,675	33,241	22,961	30,595	1,37,251	1,71,231
Nilambur	2,67,890	1,46,669	39,693	20,598	57,870	3,07,583	2,25,137
The Nilgiris	49,239	1,00,028	52,198	40,816	37,820	1,01,437	1,78,664
Palghat	2,152	1,708	83,232	51,309	29,613	85,384	82,630
Forest Research officer.	..	..	30	..	27,261	30	27,261
Total ..	5,08,533	4,41,738	3,39,657	2,09,237	2,37,918	8,48,190 (*a*) — 2,590 +14,598	8,88,893 (*l*) +5,461
						8,60,198	8,94,354
Grand total, Presidency.	17,38,481	9,38,218	36,37,617	21,36,828	9,37,522	53,76,098 (*b*) 35,641 (*c*) 14,598 (*d*) 62,540 (*e*) 63 (*a*)—27,221 (*k*) 25,344	40,18,029 (*b*) 51,622 (*c*) 1,61,724 (*d*) 1,23,005 (*e*) 1,17,772 (*f*) 62,076 (*g*) 29,621 (*h*) 29,234 (*i*) 6,216 (*j*) 27,459 (*k*) 2,756
						54,80,963	46,29,514

(*a*) Refunds and drawbacks.
(*b*) Receipts and expenditure for the Parlakimedi Maliahs, the Golgonda and Balliguda Agencies.
(*c*) Receipts and Expenditure for the Exploitation division.
(*d*) Do. do. Forest College.
(*e*) Do. do. A. General Direction—Chief Conservator.
(*f*) Expenditure on the Forest Engineering Branch.
(*g*) Do. Special Panchayat staff.
(*h*) Investment on Government commercial undertakings.
(*i*) Loss on do. do.
(*j*) Loss or gain by exchange transactions with England.
(*k*) Added as per Accountant-General's figures.
(*l*) Expenditure on account of the Madras Forest College sheds.

ANNUAL FORM No. 84.

PART I.

Forest Department, Madras Presidency.

Statement of elephants and other live-stock during 1923-24.

District.	On hand at the commencement of the year.		Number received during the year.	Number disposed of during the year.	On hand at the end of the year.		Total expenditure on maintenance during the year.
	Number.	Value.			Number.	Value.	
(1) ELEPHANTS.		RS.				RS.	RS. A. P.
First Circle.							
Godavari, Upper..	2	3,700	..	..	2	3,900	1,844 9 0
Second Circle							
Kurnool, West ..	2	5,000	..	..	2	5,000	1,574 9 8
Third Circle—Nil.							
Fourth Circle—Nil.							
Fifth Circle.							
Coimbatore, South.	22	84,800	2	7	17	58,800	23,866 0 0
Sixth Circle.							
Mangalore, North.	..	..	5	2	3	11,500	2,706 5 3
Do. South.	3	12,500	1	1	3	12,500	3,288 1 8
Wynad	30	91,800	12	16	26	91,300	18,302 15 6
Nilambur	26	97,550	8	7	27	96,050	28,385 12 6
The Nilgiris ..	28	62,200	15	19	24	63,300	21,630 6 9
Total ..	87	2,64,050	41	45	83	2,74,650	74,313 9 8
Grand Total—Elephants—Presidency.	113	3,57,550	43	52	104	3,42,350	1,01,598 12 4
(2) OTHER LIVE-STOCK.							
First Circle.							
Ganjam	26	1,375	..	(a) 7	19	818	2,638 7 3
Second Circle.	Bulls.						
Kurnool, West ..	5	525	..	..	5	525	201 7 0
Do. South ..	2	50	7	6	3	50	20 0 0
Total ..	7	575	7	6	8	575	221 7 0
Third Circle.							
Chingleput ..	1 he-buffalo	35	..	..	1	35	25 0 0
Chittoor ..	2 buffaloes.	70	..	..	2	70	..
Do. ..	1 bull.	59	..	..	1	59	1 12 0
Total ..	4	164	..	..	4	164	26 12 0

Statement of elephants and other live-stock during 1923-24—*cont.*

District.	On hand at the commencement of the year.		Number received during the year.	Number disposed of during the year.	On hand at the end of the year.		Total expenditure on maintenance during the year.
	Number.	Value.			Number.	Value.	
(2) Other Live-stock.		Rs.				Rs.	Rs. A. P.
Fourth Circle—Nil.							
Fifth Circle							
Coimbatore, South	77	6,490	39	16	100	9,671	18,314 0 0
Sixth Circle.							
Mangalore, South.	8	663	..	4	4	338	1,255 6 11
Wynad	10	1,735	11	4	17	2,140	5,712 9 11
Nilambur ..	36	2,613	1	3	34	2,569	5,968 12 7
The Nilgiris ..	15	1,774	..	3	12	1,397	4,080 1 11
Total ..	69	6,815	12	14	67	6,444	17,016 15 4
Exploitation division.	44	3,164	..	18	26	1,602	10,665 3 4
Grand Total—Other Live-stock—Presidency.	227	18,584	58	61	224	19,274	49,412 12 11

Part II.

Forest Department, Madras Presidency.

Statement of elephants gone off the list during the year 1923-24.

District.	Names.	When purchased or otherwise obtained by Government.	Age	How disposed of.
		First Circle—Nil.	Yrs.	
		Second Circle—Nil.		
		Third Circle—Nil.		
		Fourth Circle—Nil.		
		Fifth Circle.		
Coimbatore, South.	1. Bob	Captured on 14th August 1904 ..	23	Died on 19th January 1924.
	2. Meenakshi ..	Transferred from Nilambur on 16th October 1916	16	Do. 6th March 1924.
	3. Kabbini ..	Transferred from Nilgiris on 14th June 1917.	32	Do. 20th December 1923.
	4. Parvathi ..	Captured on 24th September 1921.	25	Do. 21st July 1923.
	5. Gopalan ..	Captured on 22nd July 1922 ..	7	Do. 26th April 1923.
	6. Leela ..	Born on 26th December 1923 ..	..	Do. 8th January 1924.
	7. Bhima ..	Captured on 27th September 1922.	20	Sold on 21st October 1923.

Statement of elephants gone off the list during the year 1923-24—*cont.*

District.	Names.	When purchased or otherwise obtained by Government.	Age.	How disposed of.
		Sixth Circle.	YRS.	
Mangalore, North.	1. Ceasar ..	Captured on 12th February 1910.	22	Transferred to South Mangalore.
	2. Calf of Chamundi.	Born on 18th March 1924 ..	..	Died on 22nd March 1924.
Mangalore, South.	1. Emperor ..	Captured on 6th March 1909 ..	27	Transferred to Wynad.
Wynad.	1. Peri	Do. 11th April 1889 ..	58	Transferred to North Mangalore.
	2. Chamundi ..	Do. 4th February 1900.	30	Do. do.
	3. Bomma ..	Do. 27th February 1913.	35	Transferred to Nilambur.
	4. Bhima ..	Do. 21st January 1919..	21	Do.
	5. Eemily ..	Do. 22nd June 1899 ..	44	Transferred to North Mangalore.
	6. Ceasar ..	Do. 12th February 1920.	22	Do. do.
	7. Gouri ..	Do. 12th February 1923.	1	Sold.
	8. Rustom ..	Do. 21st February 1923.	4	
	9. Goolshan ..	Do. 26th February 1923.	5	
	10. Krishnaveni.	Do. 27th February 1923.	3	
	11. Yuvaraj ..	Do. 7th March 1923 ..	1	
	12. Yuvarani ..	Do 8th March 1923 ..	11	
	13. Tippu ..	Do. 13th March 1923 ..	6	
	14. Sivaji ..	Do. 13th March 1923 ..	3	
	15 Sumthira ..	Do. 27th February 1923.	22	Died on 13th May 1923.
	16. Rugmini ..	Do. 7th March 1923 ..	50	Do. 8th September 1923.
Nilambur.	1. Lakshmana..	Do. 12th January 1924.	3½	Do. 4th March 1924.
	2. Mumtaz ..	Do. 9th August 1923 ..	2	Sold.
	3. Jani	Do. 18th February 1923.	2	
	4. Pasha ..	Do. 27th March 1923 ..	2	
	5. Seeta ..	Do. 13th September 1895.	33	
	6. Jumperi ..	Purchased in 1903	55	Transferred to The Nilgiris.
The Nilgiris.	7. Sirdar ..	Captured on 7th August 1906..	22	Transferred to Wynad.
	1. Siruvani ..	Do. 7th March 1916 ..	23	Do.
	2. Drona ..	Do. 2nd May 1914 ..	20	Do.
	3. Valmiki ..	Do. 12th May 1914 ..	23	Do.
	4. Moolabaksha.	Do. 6th April 1911 ..	22	Do.
	5. Gajendra ..	Do. 31st March 1922 ..	21	Sold.
	6. Parvathi ..	Do. 7th February 1923.	20	
	7. Hanuman ..	Do. 7th February 1923.	2	
	8. Leela ..	Do. 8th February 1923.	4	
	9. Suseela ..	Do. 8th February 1923.	3	
	10. Kalyani ..	Do. 14th February 1923.	4	
	11. Sakuntala ..	Do. 28th April 1923 ..	1	
	12. Nala ..	Do. 28th April 1923 ..	2	
	13. Ethiraja ..	Do 28th April 1923 ..	6	
	14. Sarojani ..	Do. 28th April 1923 ..	8	
	15. Natarajam ..	Do. 14th February 1923.	1½	Died on 6th May 1923.
	16 Sundari ..	Do. 29th December 1923.	80	Do. 18th March 1924.
	17. Calf of Lakshmi.	Born in captivity on 19th August 1923	.	Do. 1st September 1923.
	18. Calf of Kunthi.	Born in captivity on 8th May 1923.	..	Do. 12th June 1923.
	19. Calf of Sundari.	Borne in captivity on 8th January 1923	..	Do. 9th January 1924.

ANNUAL FORM No. 85.

Forest Department, Madras Presidency.

Abstract showing the value of stores, tools and plant for 1923–24.

District.	Buildings.				Stores.				Total.				* Difference in value.	
	On hand at the commencement of the year.		On hand at the end of the year.		On hand at the commencement of the year.		On hand at the end of the year.		On hand at the commencement of the year.		On hand at the end of the year.		In favour of the year.	Against the year.
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
First Circle.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Direction	1	400	1	400	369	4,350	282	4,000	370	4,750	283	4,400	..	350
Ganjam	102	48,719	100	48,034	9,610	25,614	8,001	21,686	9,712	74,333	8,101	69,720	..	4,613
Vizagapatam	67	12,054	56	11,719	1,748	4,901	1,691	4,831	1,815	16,955	1,747	16,550	..	405
Godavari, Upper	134	40,005	131	44,882	3,610	16,556	3,587	16,888	3,744	56,561	3,718	61,770	5,209	..
Do. Lower	159	44,698	154	45,286	2,585	6,296	7,559	6,475	2,744	50,994	7,713	51,761	767	..
Kistna	34	6,168	33	5,798	1,904	16,982	1,582	15,558	1,938	23,150	1,615	21,356	..	1,794
Total ..	497	1,52,044	475	1,56,119	19,823	74,699	22,702	69,438	20,323	2,26,743	23,177	2,25,557	..	1,186
Second Circle.														
Direction	..	..	..	..	250	6,768	250	6,168	250	6,768	250	6,168	..	600
Bellary	27	39,135	24	30,919	3,718	14,393	3,611	14,872	3,745	53,528	3,635	45,791	..	7,737
Anantapur	30	47,559	30	47,559	3,600	5,858	2,806	5,752	3,630	53,417	2,836	53,311	..	106
Guntur	27	16,920	30	19,520	5,873	10,661	5,975	11,031	5,900	27,581	6,005	30,551	2,970	..
Kurnool, East	75	73,563	71	78,478	4,686	12,254	4,562	12,628	4,761	85,817	4,633	91,106	5,289	..
Do. South	68	45,716	73	43,752	2,479	9,414	2,382	10,663	2,547	55,130	2,455	54,415	..	715
Do. West	68	94,587	64	98,753	4,732	23,254	5,191	23,666	4,800	1,17,841	5,255	1,22,419	4,578	..
Total ..	295	3,17,480	292	3,18,981	25,338	82,602	24,777	84,780	25,633	4,00,082	25,069	4,03,761	3,679	..
Third Circle.														
Direction	..	..	..	..	308	3,611	325	3,739	308	3,611	325	3,739	128	..
Cuddapah, North	47	25,635	74	22,434	2,220	6,549	2,662	8,472	2,267	32,184	2,736	30,906	..	1,278
Do. South	61	65,139	66	68,301	2,623	10,969	2,518	11,271	2 684	76,108	2,584	79,572	3,464	..
Do. West	35	16,073	33	15,842	2,590	5,697	3,048	6,231	2,625	21,770	3,081	22,073	303	..
Nellore	53	*34,384	55	32,903	42,612	38,796	44,723	35,376	42,665	73,180	44,778	68,279	..	4,901
Chingleput	22	26,629	22	30,926	2,444	4,723	2,389	4,807	2,466	31,352	2,411	35,733	4,381	..

Chittoor	42	32,856	47	35,982	3,242	14,062	2,985	14,036	3,284	46,918	3,032	50,018	3,100	..
Vellore, North	38	23,847	38	23,847	2,489	5,348	2,476	5,358	2,527	29,195	2,514	29,205	10	..
Total ..	298	2,24,563	335	2,30,235	58,528	89,755	61,126	89,290	58,826	3,14,318	61,461	3,19,525	5,207	..
Fourth Circle.														
Direction	..	..	..	..	226	2,946	229	2,833	226	2,946	229	2,833	..	113
Vellore, South	51	46,953	58	46,233	2,479	6,020	2,729	7,134	2,530	52,973	2,787	53,367	394	..
Do. West	39	33,337	41	31,698	3,153	7,495	3,551	6,890	3,192	40,832	3,592	38,588	..	2,244
Salem, East	59	29,020	59	28,091	4,363	16,749	3,828	13,856	4,422	45,769	3,887	41,947	..	3,822
Do. North..	58	33,233	56	34,455	2,426	26,632	2,599	24,394	2,484	59,865	2,655	58,849	..	1,016
Do. Central	63	45,900	65	47,349	2,485	12,180	2,546	11,764	2,548	58,080	2,611	59,113	1,033	..
Do. South..	57	36,327	61	36,217	† 5,530	10,950	5,254	9,908	† 5,587	47,277	5,315	46,125	..	1,152
Vernacular Training School.	..	..	..		568	4,120	548	3,650	568	4,120	548	3,650		470
Total ..	327	2,24,770	340	2,24,043	21,230	87,092	21,284	80,429	21,557	3,11,862	21,624	3,04,472	..	7,390
Fifth Circle.														
Direction	1	49	1	48	334	3,845	300	3,169	335	3,894	301	3,217	..	677
Kollegal	44	44,557	47	46,329	80,950	6,673	49,642	6,141	80,994	51,230	49,689	52,470	1,240	..
Coimbatore, North	85	1,01,046	88	1,01,383	2,202	10,080	1,429	9,502	2,287	1,11,126	1,517	1,10,885	..	241
Do. South ..	69	57,158	79	81,955	3,114	27,799	3,329	25,658	3,183	84,957	3,408	1 07,613	22,656	..
Madura	125	1,04,917	123	1,03,545	3,201	4,871	1,926	4,414	3,326	1,09,788	2,049	1,07,959	..	1,829
Tinnevelly	208	57,855	116	53,468	2,525	7,278	2,103	6,966	2,733	65,133	2,219	60,434	..	4,699
Vernacular Training School.	..	..	..	..	501	1,297	481	460	501	1,297	481	460	..	837
Extra Assistant Conservator in charge of Development Scheme.	..	..	..	..	256	1,503	167	1,372	256	1,503	167	1,372	..	131
Total ..	532	3,65,582	454	3,86,728	93,083	63,346	59,377	57,682	93,615	4,28,928	59,831	4,44,410	15,482	..
Sixth Circle.														
Direction	..	..	..	..	217	5,132	219	4,816	217	5,132	219	4,816	..	316
Mangalore, North	54	27,992	64	38,138	858	4,863	926	6,355	912	32,855	990	44,493	11,638	..
Do. South	39	34,020	40	34,207	891	5,697	1,092	6,682	930	39,717	1,132	40,789	1,072	..
Wynaad	95	87,426	94	86,449	2,606	11,551	6,146	12,708	2,701	98,977	6,240	99,157	180	..
Nilambur	31	36,615	28	55,446	744	10,648	1,126	11,294	775	47,263	1,154	66,740	19,477	
The Nilgiris	77	42,863	76	60,291	2,670	11,455	2,365	12,739	2,747	54,318	2,441	73,030	18,712	..
Palghat	39	23,483	38	20,277	949	7,811	903	7,639	988	31,294	941	27,916	..	3,378
The Forest Research office.	2	674	..	..	180	3,089	183	2,708	182	3,763	183	2,708	..	1,055
Total ..	337	2,58,073	340	2,94,808	9,115	60,246	12,960	64,841	9,452	3,13,319	13,300	3,59,649	51,079	4,749
Grand total, Presidency ..	2,286	15,37,512	2,236	16,10,914	2,27,120	4,57,740	2,02,226	4,46,460	2,29,406	19,95,252	2,04,462	20,57,374	62,122	..

* The variation between the closing balance of 1922–23, and the opening balance of 1923–24 is due to the wrong entry of the value of Boggutla rest-house which has now been corrected.

† *South Salem.*—The figure 5,416 in the last year's return is a mistake for 5,530.

NOTE.—Articles belonging to the Working Plans office were transferred to the office of the Extra Assistant Conservator in charge of Development Scheme.

List of individual works costing over Rs. 5,000 sanctioned by the Chief Conservator or Conservators and included in forest schemes generally approved by Government during the year 1923–24.

Nil.

ADMINISTRATION REPORT

OF THE

FOREST DEPARTMENT

OF THE

MADRAS PRESIDENCY

FOR THE

YEAR ENDING 31ST MARCH 1921

1923-1924

VOL. II

MADRAS

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ANNUAL ADMINISTRATION REPORT OF THE FOREST DEPARTMENT

FOR THE

YEAR ENDING 31ST MARCH 1924.

FIRST CIRCLE.

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

1. ALTERATION IN AREA.

Reserved forests and reserved lands.—Twelve square miles of reserved land were transferred to reserved forests. The area on 31st March 1924 was 2,514 square miles under reserved forest and 3 square miles under reserved land.

2. FOREST SETTLEMENT.

2. Twelve square miles were notified under section 16 of the Forest Act. No more settlement work was pending.

3. DEMARCATION.

3. Twenty-three miles were demarcated for the first time. Nine miles were specially repaired at a cost of Rs. 69 and 3,096 miles were repaired by subordinates free of cost. The total length of boundary demarcated at the close of the year was 3,841 miles.

4. FOREST SURVEYS.

4. The Madras Survey Party traversed the boundaries of the reserves in Sorlagondi section in *Kistna*. Local surveys of areas under working were carried out by the concerned Range Officers in all the divisions.

CHAPTER II.—MANAGEMENT OF STATE FORESTS

1. REGULATION OF MANAGEMENT.

5. *Preparation and control of working plans.*—No new working plans were sanctioned. *Ganjam*—The prescriptions of the Ghumsur working plan were carried out. The Mohiri forests of Berhampur Range were worked under Mr. Wimbush's working scheme. *Vizagapatam*—A revised working plan for 62 square miles of forests in Palakonda Range was sanctioned tentatively by the Conservator. A bamboo working plan for the whole district on a four-year rotation was also sanctioned. *Godavari Lower*—A simple scheme for working the teak areas in Kopalli and Kovvada reserves of the Polavaram Range was submitted to the Conservator for sanction last year and was approved by him during the year under report. Steps are being taken to prepare a similar scheme for working the teak areas in the

Papikonda and Kovvada Block II reserves. A revised scheme for working the mangrove forest of the Kandikuppa reserve in Rajahmundry Range received the approval of the Chief Conservator. *Kistna*—The accessible and inaccessible areas in Kondapalli reserve were separated and a simple scheme for working the fuel and bamboos in the accessible areas received the informal approval of the Conservator. The rotation of Goila Brushwood working series in Bandar Range was revised.

The prescriptions of the sanctioned working plans were generally adhered to. For want of demand two fuel coupes and three bamboo coupes in *Lower Godavari,* Ellore Range timber coupes (so called) and two Bandar Range fuel coupes in *Kistna* remained unsold. *Vizagapatam*—Bamboo coupe II of Venkatapuram Series in Sarvasidhi Range due for working in 1924-25 was under Conservator's sanction worked in 1923-24 to meet the urgent demands of the people of Vizagapatam affected by the cyclone in November 1923. Sowing of palmyra seed in the five reserves of Yellamanchili Grazing Working Circle was not carried out.

2. Communications and Buildings.

6. *Roads and Bridges.*—The expenditure on "new works" was Rs. 3,113 and on "repairs" Rs. 3,728. Little progress was made under new works owing to financial stringency. The existing roads were in most cases kept in repair. The expenditure on new works includes Rs. 459 spent on the construction of three culverts on the road from Tarasingi to Tilasingi in Kukuluba Range and one bridge across Odangi nala in Pondakhol Range in *Ganjam* and Rs. 163 paid for land acquired for the road from Lingaram to Govindapuram in Rajahmundry Range, *Lower Godavari.*

7. *Buildings.*—Rs. 7,177 were spent on new works and Rs. 10,938 on repairs. The latter figure includes cost of temporary establishment employed—Rs. 2,402. The important works carried out were—*Ganjam*—Rest houses with out houses and stables at Ballinkia and Tarasingi, barbed wire fencing around the compound of the Circuit House at Russellkonda. The Ballinkia buildings were completed. *Vizagapatam*—Inspection shed at Dhonabhai. *Upper Godavarai*—Quarters for the Forester at Peddamidisileru, for the Range Officer at Cherla and for the Forester at Tummuleru. The first two were completed. *Godavari Lower*—Tiled tannah buildings at Vizheswaram and Bobberlanka.

8. *Other works—Vizagapatam*—Platform around the well at Busilikota. *Upper Godavari*—Well in the compound of the Range Officer's quarters at Cherla. Both these incomplete works of the previous year were completed.

There were no works costing over Rs. 5,000 for which sanction was accorded by Government during the year.

3. Protection of Forests.

(a) *General protection.*

9. The following statement compares the number and classification of forest offences reported during the year with those of the preceding year and the average of the three preceding years :—

Cases.	Injury to forests by fire.		Unauthorized felling.		Unauthorized grazing.		Other offences.		Total.		Average for three years ending with 1922-23.
	1922-23.	1923-24	1922-23	1923-24	1922-23.	1923-24.	1922-23.	1923-24.	1922-23.	1923-24.	
Cases taken to court.	1	3	275	220	24	41	11	99	311	363	365
Cases compounded.	4	6	1,501	1,173	377	312	78	145	1,960	1,966	1,554
Cases undetected.	112	97	61	42	1	..	1	2	175	141	243
Total .	117	106	1,837	1,735	402	383	90	246	2,446	2,470	2,162

New cases of the year.—The figures show a decrease under all heads except under "other offences". The increase under "other offences" occurred in *Vizagapatam* and *Lower Godavari* due to the scarcity of rain in the year which encouraged the people to steal from reserves as a means of livelihood. In *Upper Godavari* there was an increase under "unauthorized fellings" due to the revision of the special rules under section 26 of the Forest Act for the control of the unreserved lands in the Bhadrachalam taluk which were not sufficiently understood by the people concerned. These rules prohibited the cutting and removal of classified trees by people other than the Koyas and Reddis, while the old rules permitted their removal. This gave rise to thefts of classified timber from the unreserves. With the transfer during the year of "Tuniki," "Chirumanu" and "Kodisa" from the list of classified to unclassified trees, it is hoped that forest offences under this head will decrease hereafter.

Cases, old and new, dealt with during the year.—The percentage of cases convicted was slightly less than in the previous year. The punishments inflicted by the magistrates are reported to be generally adequate. Beyond the usual notice of warning published in the District Gazette to the villagers against setting fire to the reserved forest, no other special steps were taken, such as suspension of privileges, closure of reserves to grazing, enhancement of grazing fees, and so forth.

Rs. 18,183 were realized as compounding fees against Rs. 18,345 in the previous year. The decrease was in *Kistna* and was due to the fact that heavy fines were levied in 1922-23 to put down non-co-operation, which state of things did not exist in the year under report.

10. A reward of Rs. 20 was granted to a Koya for information furnished which led to the detection of a forest offence which was ultimately compounded for Rs. 140.

(*b*) *Protection from fire.*

11. Form 72 shows the area attempted to be protected and that actually protected. The area under special protection was 854,584 acres or 1,335 square miles against 834,323 acres or 1,304 square miles of the previous year. Of this an area of 693,528 acres or 1,084 square miles was successfully protected at a cost of Rs. 14,709. The percentage of failure was 19 against 2.3 in the previous year. The fires were worst in Upper Godavari and Lower Godavari. In the former division the cause is ascribed to unsuccessful early burning in the Lakkavaram and Pulusamamidi Ranges owing to the greenness of the grass at the time the operation was undertaken in February and March 1923 and in the latter division to the failure of timely rains.

The area under general protection shows a decrease of 22,053 acres (34 square miles) compared with that of the previous year. This decrease is due to the transfer of whole reserves of Kondapalli, Kondur, Erraguntapalli, Barrikonda, Bandamcherla of Kistna to special protection in accordance with the prescriptions in the working plans sanctioned in Chief Conservator's Proceedings No. 17, dated 7th February 1920, No. 43, dated 14th October 1919 and No. 44, dated 14th October 1919. The area burnt was 7.741 acres or 12 square miles against 21,635 acres or 34 square miles in the previous year. The reduction is ascribed to fire season in Ganjam being decidedly better than that of the previous two years.

The number and origin of fires are compared in Appendix A.

The average cost per square mile of special and general protection was Rs. 11-0-3 and Rs. 6-2-10 per square mile attempted.

As a measure of retrenchment in Ganjam second burning of fire lines was omitted in all the Ghumsur Ranges except Surada and Majjogoda. In Vizagapatam no fire patrols were employed in Karaka reserve and fire tracing the lines in Madalammakonda reserves was discontinued. Similar economies were effected in Lower Godavari and Kistna but no details are given by the District Forest Officers.

In Upper Godavari early burning was carried out in four out of the six ranges. The total area dealt with was 665 square miles and the area successfully protected was 491 square miles. The cost of the operation during the year was Rs. 6-10-0 per square mile on an average compared with Rs. 8 in the previous year. The decrease is due to smaller expenditure on early burning and smaller rewards on account of fires.

As ordered in Chief Conservator's Proceedings No. 153, Press, dated 28th April 1924, the District Forest Officer, Upper Godavari reports :—

"The system of early burning which at present is only confined to the thinly populated or depopulated hill reserves of the division, has no odium of unpopularity attached to it in this division.

"Very few cattle graze in these distant hill reserves and in the hot weather months, no cattle at all usually visit them, and hence there can be no complaint, and in fact there is none, against the system.

"From the Forest Officer's point of view, however, I might state that there is very considerable difficulty in ensuring a satisfactory early burning of 600.86 square miles of hill reserves which has to be done in less than two months. This difficulty is all the greater in the early burning especially of the Rekapalli and Marrigura hill reserves, which together form 205.73 square miles, as there are practically no villages on the hills and all labour has to be drawn from distant villages scattered along the foot of the hills."

The District Forest Officer and I have agreed to modify the early burning system next year.

(*c*) *Protection from cattle.*

12. 2,300 square miles of forests were open to grazing against 2,298 square miles in the previous year. Goats were excluded from all reserves. The number of cattle impounded was 7,454 against 8,836 in the previous year and 7,372, the average of the three years ending with 1922-23. In *Ganjam* the grazing incidence rose from 7.02 acres in 1922-23 to 6.76 acres in 1923-24, in *Upper Godavari* from 3.70 to 3.60 acres, and in *Lower Godavari* from 2.79 to 2.00 acres. The grazing incidence in *Vizagapatam* fell from 9.80 acres in 1922-23 to 12 acres in 1923-24.

(*d*) *Protection against injuries from natural causes.*

13. Nothing of importance was done. Creepers and climbers were cut by beat subordinates free of cost. In *Ganjam*, Dr. Beeson, Forest Entomologist, visited Russellkonda in February 1924 to investigate whiteant and fungal attack on young sal. Lantana was eradicated free of cost in about one acre of Dowgam reserve. Dense growth of Lantana in about 32 acres and scattered growth in about 125 acres of the unreserves near Gazilbadi was eradicated at a cost of Rs. 100 sanctioned by the Collector from discretionary grant. In *Vizagapatam* creepers were cut in the sal areas of Antikonda and Burnakonda reserves of Palakonda Range at a cost of Rs. 28.

CHAPTER III.—SYLVICULTURE.

SECTION I.—FORMATION AND REGENERATION OF FORESTS.

(i) General progress of areas under regeneration.

14. Natural regeneration of sal in *Ganjam* was excellent. Except in the *Ganjam* sal forests the areas under systematic working are almost entirely regenerated by coppice and seedling coppice.

(ii) Establishment of reproduction under working plans or schemes.

(a) Mainly natural.

15. Regeneration was entirely natural in *Ganjam, Lower Godavari* and *Kistna.*

(b) Mainly artificial.

16. In *Lower Godavari* an area of 568 acres is to be replanted in the course of 10 years with casuarina. Twenty acres were planted during the year, of which 15 acres was done on contract at Rs. 20 per 1,000 established plants delivered after one year, the distance of planting being 6 feet × 6 feet, and five acres departmentally, planting 9 feet × 9 feet apart.

(c) Afforestation.

17. Nil.

(iii) Plantations and other forms of regeneration not under working plans or schemes.

18. *Ganjam*—About ten cents in Napier's Park reserve was planted in September 1923 with red sanders. Most of the plants survived the hot weather. *Vizagapatam*—Sal sowings were done in Chinnamangalapuram tope but the germination was very poor. The Conservator during his last inspection of Palakonda Range ordered that the tree growth in the plantation should be sold after dividing it into four blocks after which the land was to be sold for agricultural purposes. The first block was sold in 1924-25. *Upper Godavari* —Past experiments for raising teak in conjunction with agricultural crop (Taungya) proved a failure and were abandoned. Under Conservator's orders the surviving seedlings in 1922—Taungya 20 acres in the Rekapalli Hill reserve and 20 acres in the Matapalli reserve—were cut back in February 1924 and the whole area burnt and broadcasted with teak seeds in March 1924 at a cost of Rs. 113. On the other hand the clear-felling method followed by broadcast sowing in blanks in ploughed patches introduced as an experimental measure in 1921-22 promises to be a success. An aggregate area of 191 acres was regenerated in this way up to the commencement of the year to which was added 275 acres during the year. The regeneration from coppice, especially teak, is good, the height growth varying from 5 feet to 12 feet for two seasons and maddi coming next with a height growth of about 4 feet for the same period. In all the clear-felled areas there were

a fair number of died back seedlings of the valuable species, particularly of teak and maddi which, on account of the opening caused by the clear felling, shot up vigorously but the rank growth of tall grass which grew subsequent to the clear felling has tended to suppress a great many of the smaller seedlings. Some more drastic method of keeping down the grass until the small died back seedlings are able to hold their own may be necessary. In the burnt patches where the broadcast sowing of teak, maddi and yegisi was made there are a fair number of teak seedlings, but their growth is very poor in the majority of cases, not being more than about 8 inches high after two seasons growth. The aggregate area of all patches sown up to the commencement of the year under report was roughly 19 acres to which 28 acres were added during the year. If the cost of burning the rubbish heaps in each coupe is debited to cultural operations, the cost of establishing coupes of regeneration has been worked out by the District Forest Officer at Rs. 65 per acre which is prohibitive.

(iv) Tending.

19. *Ganjam.*—Cleaning at age 9 months and creeper cutting at age 3 years was done in evenaged crops of Plains Sal Timber Working Circle. Creeper cutting was also done in Ravine coupe II. *Upper Godavari*—In the unburnt portions of the clear-felled coupes the tending consisted of creeper cutting. The seedlings in burnt patches were carefully tended, those of one growing season were weeded thrice in the year and those of two seasons twice. *Lower Godavari*—In the teak lankas of Kopalli reserve, Polavaram Range, creeper cutting and girdling soft-wooded and other inferior species were carried out at a cost of Rs. 58-8-0 and climbers were also cut in coupes III and IV of Bedadavole reserve.

(v) General.

20. *Vizagapatam.*—*Bambusa Arundinacea* has flowered and died, and seedlings are now springing up vigorously in Narasapatam Range. There was a scattered seeding of *Dendrocalamus strictus* in the same range and seedlings have come up where clumps died in previous years. In Palakonda Range no fresh seedlings of bamboos were observed. *Lower Godavari—Dendrocalamus strictus* in Peddapur and Gokavaram Ranges continued to seed and die.

SECTION 2.—TENDING OF THE GROWING STOCK.

21. *Vizagapatam.*—Creeper cutting was done in the sal areas in Palakonda Range at a cost of Rs. 28 to help the growth of sal. In the other areas of the district creeper cutting was conducted by the subordinates free of cost. *Upper Godavari*—In the stock mapped teak areas outside the clear-felled coupes creeper cutting and girdling of inferior species were carried out by the subordinates free of cost.

CHAPTER IV.—EXPLOITATION

(a) *System of Management.*

(i) Major Produce.

22. The different sylvicultural systems in force were:—

Clear or regeneration fellings.—Ganjam—These were carried out in two felling series of the Plains Sal Timber Working Circle as prescribed in the working plan. 21,610 c.ft. of mill timber were extracted of which 15,079 were carted to the mill and the balance rejected and sold locally at rates varying from 3 annas to Re. 0-6-2 per c.ft. After extraction of mill timber the coupes were sold to contractors for clear felling and removing the resultant timber. *Upper Godavari*—97 acres in Tunikicheruvu reserve of Bhadrachellam Range, 98 acres in Ramachendram reserve of Marrigudem Range, 79 acres in Rekapalli Hill reserve of Pulusumamidi Range were clearfelled. The saleable timber in all cases was extracted and carted to the Godavari river-bank for sale. The refuse wood was collected in heaps 35 ft. to 40 ft. diameter and burnt. Teak seeds were thereafter sown in all the burnt patches in each coupe. The average cost of the entire operation was Rs. 3,974, Rs. 3,514, and Rs. 3,308 or Rs. 40-12-0, Rs. 35-15-0 and Rs. 41-11-0 per acre respectively. Only the timber obtained from the Ramachendram coupes was sold and realized Rs. 91-14-0 per acre or deducting cost incurred Rs. 55-15-0 net per acre. The timber obtained from the two other reserves was not sold for want of satisfactory bids. *Lower Godavari*—Forty-one acres of compartment XIV of the Kandikuppa casuarina plantation were clear-felled.

Selection fellings—Ganjam.—10,474 acres in Rambha reserve, Mjoogoda Range, yield 142,191 c.ft. of which 50,950 c.ft. were to be carted, 50,412 c.ft. was rejected timber of which 30,000 c.ft. carted to Exploitation depot, 40,829 c.ft. of mill timber remained was sold at 0-2-6 per c.ft. after the close of the year. Ten pairs of Government buffaloes were employed in dragging timber from hill slopes to carting centres; Rogodo reserve, Surada Range, yield 15,341 c.ft.; Kriamba reserve, Buguda Range, yield 10,355 c.ft. of which 6,913 c.ft. were carted to the mill.

Improvement fellings—Vizagapatam.—These were carried out in Dhonbhai and Samaralli reserves by felling dead and top-broken sal trees.

Simple coppice and coppice with standards.—The fuel coupes in all divisions were worked under simple coppice except four series in *Vizagapatam* which were worked under coppice with standards. The District Forest Officer has since been ordered to substitute simple coppice in the case of the four series referred to. In *Lower*

Godavari the teak timber coupes of Bedadavole and Kopalli reserves of Polavaram Range, one Pole forest coupe of Vatangi reserve of Peddapur Range were also treated under simple coppice. These small timber coupes fetched an average rate of Rs. 35-9-6 per acre.

Unregulated fellings.—These were as usual confined to unreserved lands and to the Rampa forests. *Upper Godavari*—These were carried out in the unreserved lands under the control of the Forest Department and trees of three feet and above in girth were felled. The fellings were confined to the coupes in Lakkavaram and Cherla Ranges, yield 1,364 and 8,084 c.ft. sold for Rs. 528 and Rs. 6,495 respectively after carting to the nearest river bank. The yepi coupes 1, 2 and 5 in Bhadrachellam Range were leased out for Rs. 1,894. Unreserve coupe 5 in Nugur Range could not be worked, as the transport of timber felled in previous year's coupe four remained unfinished and the timber itself remained unsold for want of fair offer. No fellings were carried out in the unreserves of Marrigudem and Pulusumamidi Ranges, as there were no trees of exploitable girth left.

(ii) MINOR PRODUCE.

23. *Bamboos and miscellaneous produce.*—Three methods of extraction were in vogue, viz.: departmental collection, leasing the right of collection and collection on permits. The first method was resorted to only to meet the petty requirements of the department for repairs to rest houses, etc. The produce was generally leased to contractors. The right to collect seigniorage from purchasers at shandies for minor produce purchased from hill tribes was leased in *Vizagapatam*. Collection on permits was allowed from the Agency tracts in *Lower Godavari* and from some of the forests in *Upper Godavari* which were not leased out.

Strychnos nux-vomica.—In *Vizagapatam* the produce could not be sold for want of demand and small amounts were realized by sale of the produce in the two *Godavaris* and *Kistna*. There is very little nux-vomica in the two *Godavaris* and the small price realized in *Kistna* is ascribed to the slump in the market.

Fodder grass and hay.—In *Ganjam* the right to collect grass in Napier's Park reserve was sold. In *Lower Godavari* the removal of fodder and thatch grass was allowed on permits as usual from all the reserves of the division except Coringa and Coringa Extension reserve where the right was leased. The right to cut grass in the cantonment ground at Samalkot in *Lower Godavari* and the collection of fodder grass from the closed areas in *Kistna* were leased.

(*b*) *Agency of exploitation.*

(i) DEPARTMENTAL AGENCY.

24. The outturn of major produce by departmental agency is compared with that of last year in the following abstract:—

—	Timber in thousands of cubic feet.	Fuel in thousands of cubic feet.	Bamboos.	Minor produce.
			Rs.	Rs.
1922-23	164	41	498	160
1923-24	381	335	886	292

The quantity of major produce exploited was 17.02 per cent of the total outturn and mainly consisted of the timber felled in *Ganjam* for the Sawmill, and the timber obtained from clear-fellings carried out in *Upper Godavari* on a larger scale than in the previous year. The increase under "timber" was due to the fact that fellings in *Ganjam* were stopped in 1922-23 to prevent over-stocking in the Russelkonda depot.

The increase under "fuel" was mostly due to the thinnings done in the Plains Sal Pole Working Circle in *Ganjam* on a large scale under the supervision of a Ranger kept on that duty and the increase under "bamboos" was due to the construction of and repairs to a larger number of departmental buildings in *Lower Godavari.*

(ii) BY PURCHASERS.

25. The following abstract compares the quantity of major produce and the value of minor produce removed by purchasers during the year with those of the preceding year:—

—	Timber in thousands of cubic feet.	Fuel in thousands of cubic feet.	Bamboos.	Grass and grazing.	Other minor produce.
			Rs.	Rs.	Rs
1922-23	450	2,909	1,40,295	47,048	69,762
1923-24	538	2,754	1,31,618	53,972	76,139

The increase under "timber" was due to increase in the area of timber coupes sold in *Ganjam* and to the leasing of a teak timber coupe in Kopalli reserve in *Lower Godavari* under a newly sanctioned working scheme. The increase under "grazing" was due to the influx of delta cattle in greater numbers in *Lower Godavari* and more foreign cattle admitted in *Kistna.* The increase under minor produce was due to credit of revenue relating to other Circles in the Chicacole Sub-Treasury, *Ganjam,* to the lease of Tangedu bark in all the three ranges of *Vizagapatam* and to increased revenue from Tamarind and Soapnuts removed from Rampa. The decrease under

"fuel" was due to less quantity extracted from the coupes in *Lower Godavari* although better prices were fetched. The decrease under "bamboos" was due to failure of the sugarcane crop and less removals from Rampa in *Lower Godavari* and to the fact that in *Upper Godavari* the coupes in the previous year were better stocked and fetched better prices.

(iii) AND (iv) BY RIGHT-HOLDERS AND UNDER PRIVILEGES AND FREE GRANTEES.

26. The quantity and value of forest produce removed under this head were as follows:—

—	Timber in thousands of cubic feet.	Value	Fuel in thousands of cubic feet.	Value.	Bamboos.	Grazing.	Other minor produce.	Total outturn.
		Rs.		Rs.	Rs.	Rs	Rs.	Rs.
Right-holders .	9	1,550	..	..	143	706	500	2,899
Free grantees ..	139	14,918	49	1,009	904	12,593	270	29,694

Rights.—Ganjam—The Khonds in Chokkapad Khandam have the right of free removal of timber for their domestic and agricultural purposes and free grazing. *Concessions*—The Khonds elsewhere than in Chokkapad were granted concessions in the way of building materials and free grazing for services rendered by them in fire protection and general protection of forests.

Free grants.—Free grants were made to the villagers chiefly for rebuilding their houses destroyed by fire and those blown away by the cyclone in *Vizagapatam*. Free grazing to the extent of Rs. 842 was allowed in Dharakonda, Sanivaram and Karaka reserves to the inhabitants of the neighbouring villages for services rendered by them in fire protection, etc. The estimated value of all grants was Rs. 29,694 against Rs. 23,023 in the previous year.

(c) *Outturn and sources of forest produce.*

27. The total outturn from all agencies is compared with similar details of last year in the following statement:—

—	Timber in thousands of cubic feet.	Fuel in thousands of cubic feet.	Bamboos.	Gross value of minor produce including grass and grazing.
			Rs.	Rs.
1922-23	679	2,974	1,41,397	1,30,117
1923-24	1,067	3,138	1,33,551	1,41,472

The total number of cattle for which grazing was provided was 226,162 against 200,834 in the previous year.

CHAPTER V.—FINANCIAL RESULTS.

28. The financial position of the year is compared with that of the previous year and the average of the preceding quinquennium in the following abstract:—

	1923-24.	1922-23.	Average of the previous quinquennium.
	Rs.	Rs.	Rs.
Revenue	6,41,230	5,40,426	4,67,581
Expenditure.			
B.—Conservancy and works	1,51,774	2,14,478	2,45,804
C.—Establishments	3,48,750	3,77,442	3,21,444
Total ..	5,00,524	5,91,920	5,67,248
Surplus ..	+1,40,706	— 51,494	— 99,667

The financial results of the year shows a distinct advance over the previous three years in that a continued deficit has been converted into a surplus of Rs. 1,40,706. The value of timber supplied to the Russellkonda mill from *Ganjam*, which remained unadjusted since its start, was adjusted by the Accountant-General in his March final accounts. This, coupled with the fact that four of the five divisions in the Circle were in charge of provincial officers, the reduction in the establishment of Foresters and the economy in expenditure effected under travelling allowance and contingencies contributed to the above result. Further the expenditure on "Investments in Government Commercial Undertakings", although sanctioned against *Ganjam* budget, was not shown as a debit against the division. Apparently it was dealt with separately under Mill budget and accounts. This also contributed to the surplus.

Fifty-two per cent of the revenue was derived from major produce, 33 per cent from minor produce, 8 per cent from grass and grazing, and 7 per cent from miscellaneous items. Of the expenditure 25 per cent was incurred on the exploitation of forests, 16 per cent on their upkeep and improvement and 59 per cent on miscellaneous items. The revenue outstanding at the end of the year was Rs. 16,473, of which Rs. 15,878 fell due within the year. There were no sale depots in any of the divisions of the Circle. The important variations under "Revenue" and "Expenditure" are explained below:—

Receipts.

(*i*) *By Departmental Agency.*

Timber+Rs. 72,879. Due to the adjustment of the value of timber supplied to the Sawmill above referred to.

(*ii*) *By purchasers.*

The increase under "Timber" was due to better prices realized in *Ganjam* for timber coupes sold for clear felling and improvement felling after removal of the mill trees, partly counterbalanced by decrease in *Lower Godavari* due to less timber removed from Rampa. The increase under "fuel" was due to better prices realized for fuel coupes in *Lower Godavari*. The variations under the other subheads were due to reasons already mentioned in paragraph 25 above.

Timber	+ 3,943
Fuel	+ 15,939
Bamboos	— 8,987
Grazing	+ 6,924
Minor produce	+ 11,032

(*f*) *Rents for trees tapped.*—Rs. 8,815. Due to less revenue realized from tree-owners' fees.

EXPENDITURE.

B. Conservancy and Works	...	— Rs. 62,704.
C. Establishments	...	— Rs. 28,692.

The savings in expenditure under "B. Conservancy and Works" were due to curtailment of temporary establishment under B-II, not debiting the expenditure in connexion with the Sawmill to the *Ganjam* division and under VIII-f to curtailment of rewards due to unsuccessful fire protection in *Upper Godavari* and giving up some fire lines in *Lower Godavari* as unnecessary. The decrease under "C. Establishments" was due to reasons already referred to in the commencement of this paragraph.

CHAPTER VI.—RESEARCH AND EXPERIMENTS.

29. *Research.*—Nil.

30. *Experiments.*—*Vizagapatam*—Sandal seeds were dibbled in Sanivaram and Dharakonda reserves in two plots of five acres each and teak seeds in two plots of one acre each. The results of the experiment are reported as follows:—

Species.	Surviving at the close of the year.
Sandal	2,100
Teak	82

Upper Godavari.—The Chloroxolon sample plots referred to in the last annual report were maintained. The interval for re-measurement has been now fixed at two years and the time for it will be only next year. *Lower Godavari*—Teak seedlings were raised in nurseries and planted in one acre plots in the reserves of Jaddangi, Aminbada, Rajavommangi, Vatangi, Pedagarangi and Lingamparti during 1921 and 1922. Forty-seven per cent of the same are reported to be alive. Seven pounds of sandal seed were sown in Kondapalli, Kondur and Kottur reserves in *Kistna* but there was no germination.

CHAPTER VII.—ADMINISTRATION.

31. *Tours.*—The charge of the Circle was held by Mr. Longrigg from 1st April 1923 to 11th May 1923, Mr. Bennett, from 12th May 1923 to 15th March 1924, and by Mr. Barry for the remainder of the year. The prescribed minimum of touring was done by the District Forest Officers, *Ganjam, Upper* and *Lower Godavari* and *Kistna.* The short touring in *Vizagapatam* is ascribed partly to economy in travelling allowance and partly to Agency disturbances.

The District Forest Officer, *Ganjam*, Mr. Longrigg, paid a visit to the sal forests of Gorakpur in the United Provinces and the Forest Research Institute, Dehra Dun, to study the latest work on sal and discuss sylvicultural problems with the local officers there.

32. *Inspections.*—The Conservator inspected all the District Forest offices and found them in good order. Some of the forests in *Ganjam, Vizagapatam, Upper* and *Lower Godavari* were inspected and inspection notes written. The Conservator also inspected a small portion of the forests of Balliguda Agency.

The Chief Conservator of Forests paid a visit to *Ganjam* in January 1924.

33. *List of offices audited.*—The accounts of all the District Forest offices except *Kistna* were audited by the Local Fund Staff of the Accountant-General's office and the results were satisfactory.

34. *Vernacular Training School.*—The school was held in *Ganjam* and started with 35 students of whom 5 were from Bihar and Orissa. The school lasted from 7th January to 19th June 1924 and was visited twice by the Conservator of Forests. The health of the students was good and the discipline and instruction were satisfactory.

35. *Health of the establishment including an account of measures of sanitation and casualties.—Upper Godavari*, and the Agency portions of *Ganjam, Vizagapatam* and *Lower Godavari*, continued to be unhealthy and the subordinates suffered from malaria. In *Upper Godavari*, 21 subordinates went on sick leave and 3 died, and in *Lower Godavari*, 15 went on sick leave and 6 died. One Forest Guard in *Lower Godavari* was murdered while on duty detecting an illicit grazing case. The health of the establishment in *Kistna* was good.

CHAPTER VIII.—GENERAL.

36. *Formation and management of Panchayats (to include the Forest Village System)—Lower Godavari.*—The proposal to lease out the management of a portion of the Kandikuppa reserve to

panchayats on a co-operative basis received the approval of the Chief Conservator. The orders took effect after the close of the year. *Kistna*—In addition to the three reserves already under panchayat management since 1915, 11 more reserves, 6 in Bezwada, 2 in Ellore and 3 in Bandar ranges were transferred to panchayat management during the year. No panchayats were formed in the other divisions.

The Forest Village System is not in force in this Circle.

37. *Measures for improving local supplies and facilities (includes water-supply, manure leaves, etc.).*—The wants of people in the matter of fuel and small timber were met in all divisions and there were no complaints. There is no demand for manure leaf from the forests of this Circle. In *Kistna*, the spring near the Kondapalli Palace bungalow and the Pallibhavi and Dongamarlabhavi wells in Kondapalli reserve were improved. Permission granted to private persons to dig a tank in Natchugunta and to repair a tank in Ungatur reserved forest was not availed of.

38. *Timber Transit Rules.*—The rules worked satisfactorily in all the divisions. In *Vizagapatam* the extension of the scheduled area up to Vamsadhara river in *Ganjam* referred to in the last year's report was sanctioned by the Chief Conservator owing to frequent thefts from Palakonda range into *Ganjam*. All the tannah stations in *Ganjam* and four in *Vizagapatam* were abolished as unnecessary.

39. *Jungle tribes.*—These exist in all the divisions except *Kistna*. In *Ganjam* the department continued to be on good terms with the Khonds. In *Vizagapatam* the hill tribes availed themselves of the privileges conferred on them without complaint and without abuse of rules. In *Upper* and *Lower Godavari* the Koyas and the Reddis continued to be useful to the department as usual. They were employed on the fire protection of the forests as well as on the construction and repair of roads, buildings and demarcation works. They were also employed on clear fellings and extraction of timber from unreserves in *Upper Godavari*. They were granted rewards in addition to the usual wages for the successful protection of forests from fire and were also allowed the concession of free grazing and free removal of forest produce for their domestic and agricultural requirments. They had in addition to the above, the privilege of podu cultivation in unreserves in *Upper Godavari*.

40. *Mining and quarrying—Kistna.*—Rs. 2,129 were realized from quarrying rough stone, gravel, etc., in the reserves and unreserves.

41. *Livestock—(a) Elephants—Upper Godavari.*—The baggage, elephant "Kapila" continued fit during the year, but "Surat Pari" became old and unfit for any further work. She was given away as a gift to the Zamindar of Ellore for use as a temple elephant.

(*b*) *Other animals.*—These consist of buffaloes and existed only in *Ganjam*. Out of 26 that remained at the commencement of the year, 7 were written off leaving a balance of 19 at its close.

42. *Veterinary establishment.*—Nil.

43. *Wild animals—Ganjam.*—A rogue elephant in Chandragiri reserve attacked Mr. Shelswell, Deputy Conservator of Forests, and his party on February 1, 1924, the former sustaining a broken leg and other injuries, as a result of which he was obliged to go on leave for one year from 7th June 1924. A man-eating tiger killed a man in Gogodo reserve during fellings in January 1924. The presence of man-eating tigers in the forests greatly interfered with the progress of timber operations, fire-protection and other works in Kukuluba and Bontha ranges.

44. *Civil suits—Vizagapatam.*—The decree against the defaulting contractor referred to in the last year's report was pending execution. *Lower Godavari*—The two appeals filed in the Court of the Agency Additional District Judge, *Vizagapatam*, by the Proprietor of the Gangole Estate, claiming certain portions of Kovvada and Kopalli reserves, referred to in the last year's report, were disposed of during the year. In one of the appeals in which the main cause was about the boundary near Chintapalli, the plaintiff was given a little more land near Chintapalli boundary. The rest of the appeal was dismissed. The other appeal was wholly dismissed.

45. *Control of unreserved lands by the Forest Department.*—In *Ganjam*, the Revenue Department has control over the tree growth and is primarily responsible for its protection. Valuable tree growth is disposed of in consultation with or by the Forest Department and the rest by the Revenue Department. The results are generally fair. In *Upper Godavari* the unreserves are under the control of the Forest Department and the local requirements are met from these lands. In *Lower Godavari* the control generally rests with the Revenue Department, but some of the unreserved lands in the Agency portions of *Yellavaram*, *Chodavaram* and *Polavaram* divisions are under the Forest Department. The produce from the unreserves is removed on permits issued mostly by the Forest Department and in some instances by the Revenue Department. In *Kistna* the management is vested entirely with the Revenue Department.

D. T. BARRY,
Acting Conservator of Forests,
First Circle.

2nd September 1924.

APPENDIX.

SUMMARY OF PROGRESS DURING THE FIVE YEARS 1919-20 to 1923-24.

The following is a summary of the progress made in Forest administration in this Circle during the quinquennium ending 1923-24.

The important events in this Circle during the period under review were :—

(1) The formation of a separate Agency Division from 1st December 1920 with a view to the development of the *Agency* tracts in the districts of *Ganjam*, *Vizagapatam* and *Godavari* and its abolition from 16th October 1923 as a measure of retrenchment of expenditure.

(2) The division of the Presidency into six Forest Conservators' Circles for purposes of administration with effect from 1st February 1921.

(3) The installation of the saw-mill at Russellkonda. It sawed its first long on 20th February 1922. The mill commenced regular working in April 1922 and continued to work up to the end of the period under review.

(4) The change in the period of the Administration Report from the Forest to the Financial year first introduced in the report for 1920-21.

(5) The revision of salaries of the Gazetted services and of the executive and protective staff.

(6) The introduction of the time scale of pay to the non-gazetted clerical and menial services with effect from 1st March 1921.

(7) *Forest Panchayats—Lower Godavari.*—The proposal of the Conservator to lease out the management of a portion of the Kandikuppa reserve to panchayats on a co-operative basis received the approval of the Chief Conservator. The orders took effect after the close of the quinquennium. *Kistna*—In addition to the three reserves already unedr panchayat management since 1915, 11 more reserves, 6 in Bezwada, 2 in Ellore and 3 in Bandar Ranges, were transferred to panchayat management during the quinquennium. No panchayats were formed in the other divisions.

(8) The Foresters' cadre was reduced by 15 per cent as a result of retrenchment. A number of temporary subordinates, viz., Reserve watchers, Tannadars, Permit Gumastas, Bungalow watchers, Assistant Range peons have been abolished. The drift-wood establishment in *Lower Godavari* has been largely reduced.

As a result of handing over reserves to panchayats in *Kistna*, three Foresters, seven Forest Guards, and eight Watchers were abolished. As regards office establishment the following reductions have been effected :—

Conservator's office.—One clerk, 1 attender, 2 peons and 1 sweeper.

District Forest office, Vizagapatam.—Two clerks on temporary establishment.

District Forest office, Lower Godavari.—One attender.

District Forest office, Kistna.—One clerk on temporary establishment.

Range clerks.—Reduced to 1 in all Ranges.

Administration and control.—The Conservators in charge of the Circle were :—

S. Cox, Esq., from 1st April 1919 to 31 May 1919.

C. M. Hodgson, Esq., from 1st June 1919 to 10th October 1920.

A. A. F. Minchin, Esq., from 11th October 1920 to 8th January 1921.

H. Tireman, Esq., from 9th January 1921 to 28th January 1921.

J. S. Scot, Esq., from 29th January 1921 to 14th April 1921.

A. Wimbush, Esq., from 15th April 1921 to 25th May 1921.

D. T. Barry, Esq., from 26th May 1921 to 7th December 1921.

H. C. Bennett, Esq., from 8th December 1921 to 15th April 1922.

D. T. Barry, Esq., from 16th April 1922 to 18th March 1923.

J. H. Longrigg, Esq., from 19th March 1923 to 11th May 1923.

H. C. Bennett, Esq., from 12th May 1923 to 15th March 1924.

D. T. Barry, Esq., from 16th March 1924 to 31st March 1924.

Changes in the controlling and executive charges.—The formation of the 6 Conservator's circles with effect from 1st February 1921 and the formation and abolition of a separate Agency division were the important changes. There were also some minor changes, viz. : the boundary between the Marrigudem and Bhadrachellam Ranges in *Upper Godavari* was readjusted to nearly equalise the charges in both the ranges; the Driftwood Range in *Lower Godavari* was abolished and merged with the Gokavaram Range as a

measure of retrenchment. The sanction for the trifurcation of *Godavari* was not brought into effect.

Forest legislation.—Nil.

Organization.—The reorganization of the executive and protective staffs sanctioned by the Secretary of State at the end of the previous quinquennium was brought into effect from 1st October 1919 and was further augmented by the revision of their salaries in 1921 given effect to in the case of Rangers from 1st June 1922. Thus the pay of the last grade Ranger rose from Rs. 50 to Rs. 80. A new time scale of pay was introduced for the improvement of the prospects of the non-gazetted clerical and menial services with effect from 1st March 1921.

Hill tribes.—The Khonds in Ganjam were of great help to the Forest Department in the protection of forests. The concession of free removal of forest products was as usual enjoyed by them generally without abuse. Friendly relations existed between the hill tribes and the department. The Koyas and Reddis in the *Godāvaris* continued to be serviceable to the department as usual. They were mostly employed in fire protection operations and were granted rewards in addition to wages. They were also employed in the clear-felling operations newly started in *Upper Godavari* from the year 1921.

Changes in area.—The area under the control of the department decreased from 2,523 to 2,517 sq. miles. The decrease was due to disforestation and rectifications of area.

	At commencement of the period.	At close of the period.
	SQ. MLS.	SQ. MLS.
Reserved forests	2,032	2,514
Reserved lands	489	1
Leased forests	2	2
Total ...	2,523	2,517

In addition to the above the unreserved lands in *Upper Godavari* which are not shown in the returns continued to be under the control of the department.

Further reservations.—In *Ganjam* the proposal for extensive reservation of some of the unreserved lands containing valuable sal growth was shelved. In Rampa, four blocks comprising 12 sq. miles were surveyed and mapped by the Madras Survey Party during 1915-16 and these were transferred to reserved forests in

1923-24. No Forest Officer below the rank of Conservator is allowed to enter the Rampa territory and this order is a handicap to active steps being taken in the matter of the reservation.

Forest settlement.—No settlement was pending at the end of the quinquennium under review. The settlement of 489 sq. miles pending at the end of the previous quinquennium was completed.

Demarcation.—The total length of boundary demarcated was 3,841 miles against 3,611 miles at the commencement of the quinquennium. The increase was due to the permanent demarcation of reserves which were declared reserved forests during the period.

Forest surveys.—At the close of the quinquennium the Survey of India Party commenced work in surveying certain Great Trigonometrical Stations in *Upper Godavari.* Local surveys of forests, coupes, etc., were carried out by the Range officers whenever necessary.

Working plans.—Working plans for 141 sq. miles were sanctioned and the existing plans for 165 sq. miles were deleted from the list. The balance area under working plans at the end of the period was 1,426 sq. miles.

Communications and buildings.—The average annual expenditure under this head was Rs. 56,032 during the period under review as compared with Rs. 26,325 during the previous quinquennium. The increase was due chiefly to the construction of sawmill buildings including a motor lorry shed at Russelkonda and two timber storage sheds at Berhampur, *Ganjam* district.

Forest offences.—The average annual number rose to 2,220 from 2,075 during the previous quinquennium. The increase was under "Injury by fire," "unauthorized felling," and "unauthorized grazing" while there was decrease under "other offences." The increase under "Injury by fire" was due to undetected cases of incendiarism.

Fire protection.

	Area attempted.	Fires.	Area protected.
	SQ. MLS.		SQ. MLS.
Previous quinquennium	1,959	141	1,818
Quinquennium under review ...	1,910	169	1,741

The percentage of failures increased to 8.9 from 7.2, the increase being due to unfavourable fire seasons and generally to failure of monsoons.

Protection from cattle.—Reserved forests were entirely closed to goats. The average area open to all animals except goats was 2,122 sq. miles and the average number of animals permitted to graze on payment was 206,389 against 1,682 sq. miles and 248,795 of the previous quinquennium.

Yield and outturn.—The average annual outturns of major and minor produce for the two periods are compared below :—

	Timber and fuel in thousands of cubic feet.	Bamboos in value.	Minor forest produce including grass and grazing.
		RS.	RS.
1914–15 to 1918–19	4,870	91,802	2,21,905
1919–20 to 1923–24	4,158	1,11,688	1,45,472

Financial results.—The average annual financial results for the two periods were as follow :

	Revenue	Expenditure.	
	RS.	RS.	RS.
Quinquennium ending 1918–19.	4,82,467	3,65,672	1,16,795 Surplus.
Quinquennium ending 1923–24.	5,07,795	5,86,263	78,468 Deficit.

The deficit was chiefly due to expenditure of a capital nature incurred on sawmill buildings, wells, machinery, stores, furniture, motor car and lorry in *Ganjam* and the revision of salaries of all Government services.

Forest education.—During the period under review eight Foresters were deputed to the Madras Forest College for training. Of these 1 returned with Honours, 4 with Higher Standard, and 2 with Lower Standard certificates and 1 is still undergoing training.

Vernacular training school.—A vernacular training school for the training of the protective staff sanctioned for this circle and part of the II circle was held during the five years under review. Five students per year from Bihar and Orissa province were also admitted for training in the school from 1921, the cost of their training being met by that province. The results of training were throughout satisfactory and 169 students were in all trained.

D. T. BARRY,

2nd September 1924. *Acting Conservator of Forests, First Circle.*

ANNUAL ADMINISTRATION REPORT OF THE FOREST DEPARTMENT

FOR THE

YEAR ENDING 31ST MARCH 1924

SECOND CIRCLE.

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

1. Alteration in Area.

1. *Reserved forests.*—The area of reserved forests decreased from 4,659 square miles to 4,651 square miles chiefly due to disforestation. An extent of 8,393 acres, or 13.11 square miles, was transferred from *West Kurnool* to *South Kurnool* division.

2. *Reserved lands.*—An area of 89 acres in Alur taluk was constituted as reserved land by the Collector under rule 5 (*a*) of the rules under section 26 of the Madras Forest Act.

2. Forest Settlement.

3. There is nothing to report under this head.

3. Demarcation.

4. In *South* and *West Kurnool* divisions eight miles of boundaries along disforested areas were newly demarcated at a cost of Rs. 199, and in *Bellary* Rs. 145 was spent in demarcating panchayat areas formed in the old Adoni Range. 4,642 miles of ordinary boundaries in all the divisions were repaired and maintained free of cost by subordinates, 529 miles by panchayatdars and 51 miles by the department.

4. Forest Surveys.

5. There was no survey either by the Survey of India or by the Madras Survey Party during the year.

Surveys of coupes for sale, of roads repaired and of blocks leased for minerals were as usual carried out by the department. In *Guntur*, the survey of Nemalipuri reserve was completed and a revised map and notification for it prepared.

The reference map and other maps referred to in section 80 of the Code were maintained in all divisions.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. Regulation of Management.

(a) Preparation and Control of Working Plans.

(i) *Preparation.*

6. The revision of the working plan of Gooty range in *Anantapur* division was sanctioned by the Chief Conservator in his Proceedings Mis. No. 503, dated 28th September 1923, and the plan was given effect from 1st April 1924.

The tentative working plan for the Takkelapad reserve in *Guntur* division was sanctioned for its full term of 14 years in Chief Conservator's Proceedings Routine No. 995, dated 22nd November 1923. The revision of the Repalli mangrove working plan and the preparation of simple working schemes to supply fuel, leaf, fodder and agricultural implements in Vinukonda, Sattenapalli and Palnad ranges of the same division were taken up in accordance with Mr. Whitehead's inspection notes of the division of August 1923.

The working plan of Sirvel range in *South Kurnool* division was completed, and was received by the Conservator after the close of the year. The reconnaisance reports of Owk range and Gundlakamma range approved by the Conservator with certain modifications have been submitted to the Chief Conservator.

The revision of the working plan for the forests on the Gundlabrahmeswaram plateau has been held in abeyance. The results of the experimental clear fellings, followed by concentrated regeneration operations referred to in last year's report are not encouraging. Arrangements are being made now to raise teak from stumps in order to test the efficacy of this method against other methods already tried. The proposed revision of the Yerramalais' working plan has not progressed very much. The working scheme for the lower and upper Terrai forests in the Nandyal range is under revision on the lines suggested by Mr. Barry.

(ii) *Control.*

7. The tentative working plan of Harpanahalli range in *Bellary* division was cancelled as it was found to be unworkable, and simple working schemes drawn up for the guidance of future panchayats are now adopted for the sale of fuel coupes.

The provisions of working plans in *Anantapur* were generally adhered to except that, owing to drought, free grazing was allowed temporarily from 1st September 1923 and closed areas were thrown open to grazing.

The Guttikonda and Bollapalle tentative working plan in *Guntur* division was practically suspended during the year as there was no demand for fuel coupes. Other plans were adhered to.

In the three *Kurnool* divisions, sanctioned plans were generally followed. Working plans are urgently needed for the main Nallamalai reserves where very large areas of valuable forest remain unexploited for want of communications. During the last 10 years various schemes for roads and buildings have been put forward but they lack the coherence that settled plans for the whole area would give.

2. Communications and Buildings.

(*a*) *Roads and Bridges.*

8. No new roads were opened in *Bellary* or *Anantapur* or *South Kurnool* division. In *Guntur* and *East* and *West Kurnool* divisions roads to a length of nearly 31 miles were constructed at a cost of Rs. 3,250, against about 35 miles at a cost of Rs. 3,588 in the previous year. The chief of these was the Yeguvacherlopalli-Regatigunta road in *East Kurnool* division 5 miles 6 furlongs in length which cost Rs. 2,132.

Other works were principally alignment of roads, formation of bridle paths around coupes, and construction of Irish bridges.

130 miles of existing communications were repaired at a cost of Rs. 14,878 against 128 miles at a cost of Rs. 16,169 in the previous year.

(*b*) *Buildings.*

9. The total amount spent on the construction of new buildings was Rs. 3,594 against Rs. 10,556 in the previous year. The amount spent on repairs was Rs. 12,777 against Rs. 11,332 in the previous year.

The chief buildings constructed were :—

Guntur division —

Construction of an inspection shed at Suryalanka;
Construction of a range office at Macherla.

East Kurnool division—

Rest house at Yerragondapalem.

West Kurnool division —

Construction of subordinates' quarters at Sivapuram in progress.

(*c*) *Miscellaneous.*

10. Sums of Rs. 1,152 and Rs. 594 were spent on new works and repairs against Rs. 1,058 and Rs. 247 respectively in the previous year on works of construction, clearing out wells and digging trial pits for new wells.

3. Protection of Forests.

(a) *General Protection.*

11. The total number of new cases reported during the year under all classes was 5,508 of which 345 were undetected. The balance of 5,163 new cases, together with 887 pending at the close of the preceding year amounted to 6,050. Of these 4,937 were disposed of and 1,113 cases were pending at the end of the year.

The following statement compares the offences registered during the year under report with those of the previous year :—

	1922-23.	1923-24.
Injury to forests by fire	207	185
Unauthorized felling	2,968	3,354
Do. grazing	1,519	1,767
Other offences	211	202
Total ...	4,905	5,508

The decrease under injury to forests by fire is small and calls for no remarks. There would have been a larger decrease but for the comparatively large number of fires in *East Kurnool* division which showed an increase of 23 cases over the previous year's figures.

Under unauthorized fellings, the increase was mainly in *Guntur* and *South Kurnool*. In *Guntur*, the increase is ascribed to better vigilance displayed by the protective staff, and in *South Kurnool* to the adverse seasonal conditions and consequent unemployment which led to forest crime.

Under grazing the increase is solely in *Guntur* and is ascribed to better protection.

The small decrease under other offences calls for no remarks.

Cases brought to trial.—The total number of cases taken to court for disposal was 1,964, of which 997 ended in conviction and 409 in acquittal, leaving 558 cases pending with Magistrates.

The percentage of acquittals rose from 4.2 in the previous year to 20.8 during the current year. The increase in the number of acquittals is specially noticeable in *Bellary* and *Guntur*. In *Bellary* it is due to the payment of compounding fees in the court in 118 cases and to the withdrawal of 13 cases where the presence of the accused could not be secured. In *Guntur* it is due to the payment

The pendency of cases taken to court at the close of the year was heavy in *Guntur*. Of the 409 cases shown under acquittals, 55 cases were acquitted by the Magistrates after due trial, 31 cases were withdrawn and in 323 cases compounding fees were paid after they were taken on the Magistrate's file.

The number of cases compounded during the year and the amount of compensation fees realized are given below :—

Division.	Number of cases compounded.	Compounding fees collected.
		Rs.
Bellary	377	5,458
Anantapur	548	9,807
Guntūr	1,428	38,975
East Kurnool	327	7,368
South Kurnool	388	9,718
West Kurnool	431	3,994
Total ...	3,499	75,320

In *Guntur* division, rewards to the extent of Rs. 100 were sanctioned by the Conservator for detection of a goat browsing case in trying circumstances.

In *West Kurnool* Rs. 25 was sanctioned to subordinates for detection of a case of illicit grazing in which they had to face determined opposition and assault by the cattle owners.

The punishments inflicted by Magistrates were generally satisfactory except in *Anantapur* division.

(*b*) *Protection from Fire.*

12. The total area attempted to be protected from fire under the three systems of special protection, early burning and general protection was 4,240 square miles, in 4,086 square miles of which protection was successful. The percentage of success is very nearly the same as last year's figure. The total cost incurred for the area of 1,084 square miles treated under the early burning system was Rs. 1,421 or Re. 1-4-10 per square mile against Rs. 1,594 or Rs. 6-6-0 per square mile for the area of 250 square miles under special protection.

The total cost of the fire protection operations of the year was Rs. 3,388 against Rs. 14,561 of last year.

Early burning.—There were no early burning operations in the divisions of *Bellary, Anantapur* and *Guntur*. A special report on these operations in the three *Kurnool* divisions was submitted to the Chief Conservator in this Office No. M-2-1057/2, dated 13th August 1924. The system was not unpopular with the people.

(*c*) *Protection from Cattle.*

13. The following table compares the areas closed and open to grazing during the year under report with those of the preceding year :—

	1922-23.	1923-24.
Closed to all animals—		
Whole year	946	1,035
Part of year	2	41
Open to all animals except goats—		
Whole year	3,421	3,299
Part of year	Nil.	3

Besides the 3,299 square miles open to grazing for all animals 273 square miles in *Guntur* were open to all animals except sheep. In *Bellary*, owing to adverse seasonal conditions, free grazing was allowed in all open areas of Bellary range temporarily from February 1924, and the Moka plantation, 1,100 acres in extent, which was closed to grazing, was also thrown open to grazing on permits. In *Anantapur*, all the reserved forests were thrown open temporarily to free grazing for all animals except goats from 1st September 1923 on account of drought. In *Guntur*, 16.54 square miles of reserved forest in Vinukonda range hitherto closed to sheep, were open to them temporarily for 1923-24 in view of the fact that grazing was reduced by the leasing out of some areas as Kanchas. In *East Kurnool*, all the ranges except Gudem were thrown open temporarily to grazing on account of drought. In *South Kurnool*, out of 546.34 square miles closed to grazing in the beginning of 1923-24, an extent of 166.69 square miles was opened during the year. In West *Kurnool* no free grazing was permitted during the year, nor were any closed areas thrown open to grazing.

The number of cattle impounded during the year was 59,706 against 65,059 in the previous year and 57,259, the average for the three years ending with 1922-23. The decrease which chiefly occurred in *Anantapur*, due to throwing open the reserves to free grazing from 1st September 1923, was partly counterbalanced by an increase in *Guntur* division. The increase in *Guntur* division is due to better protection.

(*d*) *Protection against injuries from Natural Causes.*

14. There is nothing to report under this head.

CHAPTER III.—SYLVICULTURE.

1. Formation and Regeneration of Forests.

General Progress of areas under Regeneration.

15. In *Anantapur*, sandal was dibbled in areas already treated in Bukkapatnam and Madakasira ranges in order to fill up blanks. The season was unfavourable and the results were not very successful. However, sandal is established in these reserves and the experiment should be continued.

The same applies to operations in the Chilkanahatti sandal area in Kudligi range of *Bellary* division.

In *Guntur*, there were no specific areas under regeneration during the year, but regeneration of mangrove from seed in the coastal reserves of Repalli is reported to have been good.

2. Establishment of Reproduction under Working Plans or Schemes.

(*a*) *Mainly Natural.*

Natural reproduction from coppice was generally good, but that from seed was poor. In the Nallamalais of *Kurnool*, natural reproduction of *Pterocarpus Marsupium* was good at first, but seedlings get choked by grass and require a great deal of tending. Early burning appears to favour natural reproduction of teak.

(*b*) *Mainly Artificial.*

In *West Kurnool*, in accordance with the prescriptions of the Veldurthi working scheme, cultural operations were undertaken in about 10 acres of black cotton soil. The area was ploughed and sown with field crops—korra and cotton—with lines of forest species 20 feet apart. The germination of the forest species (Pterocarpus Marsupium, Melia azidirachta, tamarind and Acacia arabica) was remarkably good, as was also that of the field crop which gave early promise of success. The North-east Monsoon was a failure, however, and the field crop suffered very badly as also the forest seedlings though to a less degree. The mulching saved a large proportion of seedlings that would otherwise have died. The net result was 311 seedlings per acre.

(*c*) *Afforestation.*

There is nothing to report under this head.

3. Plantations and other forms of Regeneration not under Working Plans or Schemes.

17. In *South Kurnool*, a coupe of 23 acres near Isukagundam in Gundalakamma range and two coupes in Sirvel range (one of

25 acres in Medambhavi valley and another of 15 acres in Garella valley) were opened for regeneration during the year at a cost of Rs.694, Rs. 369 and Rs. 349 respectively. The areas were dibbled with seeds of teak, *Pterocarpus Marsupium*, *Gmelina arborea* and *Terminalia tomentosa*. The seedlings successfully germinated to the extent of 50 to 60 per cent, but suffered later from want of rain. They may, however, recover.

Stumps of natural seedling were also transplanted, but suffered from the same cause.

Another coupe of 10 acres was clear felled towards the end of the year and burnt. Of this, an area of about five acres was dibbled with teak seeds in March after loosening the soil in 2 feet squares about 18 inches deep in accordance with the instructions of the Chief Conservator. Though all possible steps were taken to promote the success of the regeneration, the result was not promising.

The regeneration of a coupe in Gazulapalli reserve was undertaken at a cost of Rs. 343. Here the agri-sylvicultural method was tried, a crop of "korra" was sown and seeds of the same tree species were dibbled in lines 12 feet and 6 feet apart.

In *West Kurnool*, no additions to regular plantations were made this year. In accordance with the instructions of the Chief Conservator, the teak plantations are being surveyed with the object of excluding from Form No. 75-B the areas where the planting failed originally or where plants have died in recent years owing to prolonged drought.

An expenditure of Rs. 930 was incurred in the upkeep of the existing plantations and was devoted to weeding and clearing and marking trees for thinnings.

In the emergency coupes, regeneration was undertaken, but with doubtful success.

4. TENDING.

18. *South Kurnool.*—The areas regenerated in the three experimental coupes were tended. The seedlings were weeded three times in the year and the soil around them was aerated and mulched in January.

West Kurnool.—Clearing was done in the teak plantations at Bairluty, Nagaluty, Pasurutla, Rudracode, Sudam and Pecheruvu at a cost of Rs. 864.

Trees were marked for thinning in the Pasurutla plantations of a cost of Rs. 50. Large trees of inferior species which were interfering with the growth of teak and other valuable species were girdled and Atlas solution was applied. Most of these large trees

have succumbed to the treatment. In cases where the first application has not been successful, a second will be given.

5. General.

19. The last two seasons have been so dry that operations of this nature have not had much chance of success. Natural reproduction in the *Kurnool* Nallamalais is undoubtedly good, but seedlings are either choked by grass or scorched by the sun, so that it is a difficult and costly matter to establish a crop.

CHAPTER IV.—EXPLOITATION.

(*a*) System of Management.

(1) *Major Forest Produce.*

20. The subjoined statement shows the total area under working plans and the different systems of management in force during the year :—

Sylvicultural system adopted.	Area in square miles.	Percentage of total area under each method.
	ACS.	ACS.
Clear felling	... ..	.....
Coppice with standards ...	267·30	36·57
Improvement fellings	... ..	.....
Selection fellings	0·17	0·02
Area closed to exploitation or exploited but not under working plan.	463·47	63·41
Total ...	730·94 or 731 square miles.	100

Besides the above 44 square miles are covered by tentative schemes of working. The increase of 107 square miles during the year is due to the sanction accorded for the working plan of Gooty range in *Anantapur* division.

In *South Kurnool* division, two coupes of 15 acres each in Sirvel range and one coupe of 10 acres in Gundlakamma range were clear felled for purposes of artificial regeneration.

The system of coppice with standards was adopted mainly in *Guntur* and *West Kurnool* divisions.

Selection fellings were confined to the Takkelapad reserve in *Guntur* division, a very small area.

Unregulated fellings were conducted in some scattered areas of *West Kurnool* division by issuing permits to remove palmyra trees, and by cutting and converting dead timber into spokes and felloes and rafters to meet the requirements of the public.

(2) *Minor Forest Produce.*

There was no change in the method of working. Bamboos and other minor forest produce were collected by the Chenchus under departmental supervision in the Nallamalais of *East* and *West Kurnool* divisions. In other divisions, they were as usual leased out to contractors.

(*b*) AGENCY OF EXPLOITATION.

1. *Departmental Agency.*

21. *Major Produce.*—As in the past regular departmental operations of extracting timber and fuel were conducted mainly in *East* and *West Kurnool* divisions to give sufficient employment to the Chenchus.

The outturn of major produce is compared with that of last year in the following abstract:—

Year.	Timber in thousands of cubic feet.	Fuel in thousands of cubic feet.
1922-23	95	394
1923-24	96	154

The outturn under timber was practically the same in the two periods, the increase being only 1,000 cubic feet which calls for no remarks; but the decrease under fuel was large, the decrease being 240 thousands of cubic feet; the reason given is absence of demand for the produce already stocked in the depots and to the employment of Chenchus on other works.

With a view to reducing the stock of fuel on hand, an experiment has been carried on in *West Kurnool* division for the last two years by converting the existing stock into charcoal and selling the charcoal to the public; the prices realized varied from Rs. 2 to Rs. 2-8-0 per 100 lbs. The quantity of charcoal thus disposed of during the year was 19,654 lbs. against 10,311 lbs. of the previous year. A Hornsby charcoal kiln is being used and gives good results.

Minor Forest Produce.

Minor Forest Produce.—The following abstract compares the outturn of the year under report with that of the previous year:—

Year.	Bamboos		Other minor produce.	
	Number.	Value. Rs.	Quantity.	Value. Rs.
1922-23 ...	707,964	14,961	15,879	8,049
1923-24 ...	911,587	18,737	25,872	13,840

The increase under bamboos is due partly to the employment of the Chenchus more on bamboo work than on timber and fuel operations, and partly to the abandonment of the monopoly system followed in the past in *West Kurnool* division; the new method is to supply the produce on indents to all persons who apply for it. In *South Kurnool* division, 4,385 bamboos were cut and used for departmental works.

The increase under minor forest produce is due to a bumper crop of tamarind and soapnuts during the year, especially in *East Kurnool* division.

(2) *By Purchasers.*

22. *Major produce.*—The following abstract compares the quantity of major produce and the value of minor forest produce removed during the year with those of the preceding year :—

Description of produce.	1922-23.	1923-24.
Timber in thousands of cubic feet	490	732
Fuel „ „	766	1,273
Bamboos in value	Rs. 28,766	Rs. 30,559
Grass and grazing in value	„ 2,67,544	„ 2,62,207
Other minor produce including tree-tapping fees in value.	„ 2 ?1,017	„ 2,30,974

Timber.—There was an increase in all the divisions except *Anantapur;* it was abnormal only in *Guntur* and *West Kurnool* divisions (increase in these two divisions being 219 thousands of cubic feet) owing to the large removal of timber from areas disforested in *Guntur* division and from the unreserved lands of *West* Kurnool division, where a large number of darkhast applications were disposed of in favour of depressed classes by the Revenue department. In other divisions also (*Bellary* and *East Kurnool*) the removals from unreserved lands were greater than those of the previous year.

During the year a very keen demand arose in *South Kurnool* division for soft wood species such as *Bombax Malabaricum Givotia rottleriformis* and *Stericula urens* on account of the development of the slate industry, a number of firms being established at Markapur and Cumbum. To meet this demand trees in the coupe were numbered and marked. The contractors were allowed to fell and remove the trees. It is reported that the demand for these species is so great that timber is imported from Hyderabad also as fashioned timber is available there. Consequently a depot has now been opened at Chelama for the sale of fashioned timber departmentally to attract purchasers.

Fuel plus 507 thousands of cubic feet.—The increase occurred in all the divisions except *East Kurnool*. It is due to large removals from disforested areas in *Bellary* and *Guntur* and from lands

assigned on darkhast to depressed classes in *West Kurnool* and to a large number of coupes sold in *Anantapur*, *Guntur* and *South Kurnool* divisions.

Minor Produce—Bamboos.—The increase of Rs. 1,793 occurred in *East* and *South Kurnool* divisions partly due to keen competition among the contractors and partly due to the sale of 20 bamboo coupes in both the divisions against 15 during the previous year.

Grazing.—Under this head there was a decrease of Rs. 5,337 due to having allowed free grazing for a period of seven months from 1st September 1923 in all the open areas of *Anantapur* division on account of scarcity of fodder and to the reduction of grazing fees in Harpanahalli range of *Bellary* division to half the rates prevailing in the previous year.

Other minor produce.—This year there was an increase of Rs. 9,957 due to the sale of rela bark (Cassia fistula) in *Bellary*, *South* and *West Kurnool* divisions, which was not sold in the previous year; to the bumper crop of tamarind, soapnuts, etc., in the three *Kurnool* divisions; and to the larger number of trees tapped in *Bellary* division. The right to remove fodder grass from four reserves of *Bellary* division covering an area of 7,422 acres was leased out for Rs. 870 to Mr. Howes, who harvested 938 tons of hay during the year.

The Military Grass Farms department continued hay operations in *Bellary* and *South Kurnool* divisions and the total output of hay during the year was 1,570 tons (1,444 tons from *South Kurnool* and 126 tons from *Bellary*) for which a royalty of Rs. 3,142 was realized.

Permits were issued as usual for grazing, stone, gravel, earth and manure leaves.

(3) and (4) *By right and privilege, holders and free grantees.*

23. The following statement shows the quantity and estimated value of produce removed under these heads:—

—	Timber.		Fuel.		Bamboos in value.	Grass and grazing in value.	Other minor produce in value.	Total value.
	Quantity in 1,000s of cubic feet.	Value.	Quantity in 1,000s of cubic feet.	Value.				
		Rs.		Rs	Rs.	Rs.	Rs.	Rs
Right and privilege holders.	1	250	154	170	..	4,014	..	4,434
Free grantees ..	84	9,678	..	..	233	8,716	1,137	19,764
Grand total ..	85	9,928	154	170	233	12,730	1,137	24,198

24. *Rights and Privileges.*—The Chencus of the Kurnool divisions availed themselves of the concessions admitted at forest settlement, viz., (1) removing timber for their huts; (2) enjoying minor produce; and (3) grazing their cattle (numbering 947 buffaloes, 1,524 cows and 2,279 sheep) in the reserves without payment of fees.

The scheme for extinguishing the rights possessed by the Chenchus in Palnad range of *Guntur* division, referred to in last year's report, is said to have been taken up.

25. *Free Grantees.*—Grants were made in all the divisions (both from reserves and unreserves) chiefly to rebuild houses destroyed by fire.

In *Guntur* grants amounting to the value of Rs. 736 were also made to the settlers of the Jayapuram Industrial Home for making baskets and mats.

Free removal of grass in head-loads was allowed as hitherto to local people in most of the divisions, but no figures showing the actual number of head-loads removed have been given. The concession has been freely enjoyed.

In *Anantapur* free grazing was allowed, as already stated in paragraph 22 above, but correct figures are not available as to the actual number of cattle admitted free under this concession as no free permits were issued. However, the figures shown in columns 23 to 27 of Form No. 74 have been arrived at by deducting the average number of cattle licensed to grazing during the last five years from those for which permits were taken before 1st September 1923.

(*c*) OUTTURN AND SOURCES OF FOREST PRODUCE.

The following table compares the total exploitation of the year by all agencies with that of the previous year :—

Year.	Timber in thousands of cubic feet.	Fuel in thousands of cubic feet	Bamboos in value.	Grazing and fodder grass.	Other minor produce, including tree-tapping fees.
			Rs	Rs	Rs.
1922-23	664	1 314	44,197	2,71,211	2,30,225
1923-24	913	1,581	49,531	2,74,937	2,45,132

The variations have been explained above.

26. *Application of co-operative methods to forest undertakings.*—Nothing worth mentioning was done in this direction in any of the division during the year.

The Tekur Co-operative Society in *West Kurnool* division (referred to in the previous year's report) which worked a coupe in this division is reported to have applied for perferential treatment to be shown to them from which the District Forest Officer infers that all is not well with the management of the Society.

CHAPTER V.—FINANCIAL RESULTS.

27. The financial position of the Circle was, on the whole, satisfactory as the year's working resulted in a surpuls of just over $1\frac{3}{4}$ lakhs against nearly one lakh of the previous year as shown below :—

	1923-24.	1922-23.	Average of the preceding five years.
	Rs.	Rs.	Rs.
Revenue	8,16,978	7,52,310	9,11,705
Expenditure—			
B. Conservancy and works ...	1,26,378	1,35,369	1,55,540
C. Establishment and contingencies.	5,07,583	5,18,002	3,36,034
Total ...	6,33,961	6,53,371	4,91,574
Net total ...	1,83,017	98,939	4,20,131

During the year the gross revenue increased by Rs. 64,668 and the total expenditure decreased by Rs. 19,410 as compared with that of the previous year. But the net surplus exceeded that of the previous year by Rs. 84,078; this is mainly due to the large stock of bamboos and minor forest produce collected and sold departmentally to the general increase under timber and fuel and tree-tapping fees exploited by purchasers from unreserved lands and disforested areas. There was also an increase in the compounding fees levied and collected during the year.

Of the gross receipts—

22 per cent was realized from major produce;
31 per cent was collected from grass and grazing;
30 per cent was contributed by minor forest produce;
6 per cent was derived from bamboos and the balance;
11 per cent was made up by miscellaneous items.

The financial results of each division are dealt with below :—

There was an increased surplus compared with the results of 1922-23 in the divisions of *Bellary*, *Guntur* and *South Kurnool*.

(1) *Bellary plus Rs.* 18,396.

Due to greater number of trees tapped during the year (which alone brought an increased revenue of Rs. 11,507) and to larger removals of timber and fuel from newly disforested areas and unreserved lands.

(2) *Guntur plus Rs.* 57,512.

Due to large removals of timber and fuel from disforested areas and unreserved lands, and to the sale of large quantity of "pati" earth in Bapatla taluk and to heavy compounding fees realized during the year.

(3) *South Kurnool plus Rs.* 9,207.

Due to better prices realized by the sale of timber and fuel coupes and to the sale of rela bark which was not sold in the previous year; and to the special steps taken for collecting grazing revenue during the year.

In two divisions there were deficits in the net results as shown below:—

(4) *East Kurnool minus Rs.* 8,688.

There was a surplus of Rs. 18,756 in gross revenue over that of the previous year but the net result was a deficit of Rs. 8,688. The deficit last year, however, was Rs. 22,615.

(5) *West Kurnool minus Rs.* 14,975.

As compared with the deficit of the previous year (Rs. 37,893), considerable progress was made in the year under report with the result that the heavy deficit of last year was made up to an extent of Rs. 22,918, leaving a deficit of only Rs. 14,975. Even this deficit would not have occurred had it not been for the increased expenditure of Rs. 14,853 under establishments during the year due to payment of hill allowance sanctioned to Forest subordinates and to the debiting of the cost of whole of Chenchu establishments to Forests from the year under report.

In one division (*Anantapur*) there was a net surplus of Rs. 50,726, but it fell short of that of the previous year by Rs. 40,824; this was due to free grazing having been allowed during seven months of the year and to the sale of rela bark in the previous year.

The outstanding revenue at the end of the year was Rs. 63,158, of which Rs. 5,292 fell due within the year.

The estimated value of timber and other produce at sale depots at the close of the year was Rs. 29 against Rs. 298 at the beginning of the year.

EXPENDITURE.

B. Conservancy and Works — Rs. 8,991.

28. Due to smaller outlay owing to financial stringency especially under roads and buildings, and planting and early burning operations.

C. Establishment and Contingencies — Rs. 10,419.

29. The decrease was under CI-(*a*) Pay of Conservators and CII-(*b*) Pay of superior officers appointed by the Secretary of State. Under CI-(*a*) it was due to the Conservator of Forests, Third Circle, having held additional charge for nearly three months and to junior Conservators of Forests having held charge for the rest of the year; and under CII-(*b*) to the *Guntur* division having been held by a Deputy Conservator of Forests drawing a smaller salary than the one in the previous year.

CHAPTER VI.—RESEARCH AND EXPERIMENTS.

(*a*) *Research.*

30. No research work was done during the year.

(*b*) *Experiments.*

31. No fresh sowings were undertaken in the experimental area devoted to *Cassia auriculata* (Tangedu) in Golla reserve in *Anantapur* division, and the operations were confined to counting the seedlings in small plots in the areas under observation.

Experiments are being carried out in the coastal reserves of *Guntur* division to test the coppicing capacity of mangrove (*Avicennia officinalis*), to find out the best way of regenerating this species, and to determine its rate of growth, but it is too early to report the results.

Taungya plantations were started in *East Kurnool*, but are not yet successful.

Observations in the sample plots in the Nagaluti teak plantations and at Gundlabrahmeswaram referred to in last year's report were continued and the results are being recorded. A nursery has been opened at Gundlabrahmeswaram to raise stumps which when three years old will be put out in these plots and the efficacy of this method will be compared with that of other methods of regeneration already tried.

CHAPTER VII.—ADMINISTRATION.

32. The officers who held charge of the Circle are shown below :—

Name of officer.	Period	
	From	To
A. B. Jackson, Esq. ...	1st April 1923	4th April 1923
C. E. C. Fischer, Esq. ...	5th April 1923	20th June 1923
T. A. Whitehead, Esq. ...	21st June 1923	12th Nov. 1923
D. T. Barry, Esq. ...	13th Nov. 1923	5th March 1923
T. Clear, Esq. ...	6th March 1924	31st March 1924

33. The number of ranges decreased from 32 to 31 owing to the abolition of Adoni range with effect from 1st October 1923.

Tours.

34. Sir Arthur Knapp, Executive Council Member toured in *South Kurnool* division in January 1924.

The Chief Conservator inspected the Kupgal and Banavasi reserves of the old Adoni Range in August 1923 and also visited *Kurnool*. Mr. Whitehead inspected Kupgal and Banavasi reserves with the Chief Conservator. In October and November 1923, he inspected the reserves in the Kadiri, Bukkapatnam, Madakasira and Tadpatri ranges. He also inspected the sandy reserves of Bapatla range and a few of the reserves in Vinukonda and Sattenapalle ranges *Guntur* district. The forests in Gundlakamma, Chelama and Sirvel ranges of *South Kurnool* division were inspected both by Mr. Whitehead and Mr. Barry. In the *West Kurnool* division, the forests of the Yerramalais were inspected by Mr. Whitehead and those of the Nallamalais by Mr. Barry.

All the District Forest Officers did the requisite amount of touring.

Audit of the District Forest Offices.

35. The accounts of all the offices for 1922-23 were audited by the Auditing Staff of the Accountant-General and the general result was satisfactory. The audit of accounts which was hitherto done by the staff of the Examiner of Local Fund Accounts of the Accountant-General's office has been transfered to the Accountant-General's staff itself from 1st April 1924.

Recruitment and Training.

36. Two Assistant Conservators, Messrs. M. K. Nayar and S. R. Rao, were posted to the Circle for training.

Recruitment to the Madras Forest College.

37. One Forester, Arogyaswami Pillai, attached to *Anantapur* district, was deputed to the College for the 1923—25 course.

Recruitment to the Vernacular Training School.

38. There was no school for training in the Circle though there are a very large number of foresters and forest guards remaining to be trained. One forester and five forest guards were deputed from *Bellary* and *South Kurnool* divisions to the First and Third Circle schools for training and they passed the course. One forester and 16 Forest Guards were deputed for training to the schools at Russell-*konda* and *Cuddapah* from the divisions of *East, South* and *West Kurnool.*

Health of Establishment, including an account of Measures of Sanitation and Casualties.

39. The health of establishment was satisfactory in *Bellary* and *Anantapur,* and fair in *Guntur* and *East Kurnool.* It was bad in *South* and *West Kurnool* chiefly on account of malaria. There were complaints of guineaworm and malaria in *East Kurnool also.* In *Anantapur,* one Forester and one Forest Guard died, in *Guntur* one Ranger, and in *South Kurnool* one Range Clerk and one Forest Guard. In *East, South* and *West Kurnool* divisions many subordinates were granted leave on medical certificate.

No special measures of sanitation were undertaken.

Work and conduct of establishment.

40. *Rangers.*—The work and conduct of the Rangers was generally satisfactory with a few exceptions. One Supernumerary Ranger in *South Kurnool* was reduced to Forester's grade for neglect of duty in connexion with an important building work. In two ranges in *Anantapur* division grazing permits to the value of Rs. 873 were lost. In one case the Ranger was made to pay the full value.

The conduct of the protective staff (Foresters and Forest Guards) was much as usual.

The conduct of the ministerial staff was generally satisfactory. In *Anantapur* one Range Clerk was dismissed for suspicious conduct in respect of the missing permits above referred to in two ranges in which he was working.

The District Forest Officers, *East, South* and *West Kurnool* complained that they were unable to maintain a high level of efficiency owing to frequent changes in their clerical establishment.

CHAPTER VIII.—GENERAL.

(*i*) Formation and management of Panchayats.

41. In Bellary division 25 panchayats were newly formed in addition to 45 already existing at the beginning of the year; no panchayat was dissolved during the year.

In *Anantapur* no new panchayats were started, but one out of two in existence at the beginning of the year was resumed by the department on account of mismanagement by the panchayatdars.

In *Guntur* 32 panchayats were in existence at the beginning of the year, four were newly formed and two were dissolved, leaving 34 at the close of the year.

No new panchayats were formed in the other divisions of the circle.

The working of most of the panchayats was fair.

Two Panchayat Inspectors were posted during the year, one for *Bellary* and the other for *Guntur*.

(*iii*) MEASURES IMPROVING LOCAL SUPPLIES AND FACILITIES.

42. In *Guntur* division 35 coupes were advertised for sale, but only 22 were sold owing to the disforestation of large areas which provided fuel. As regards small timber for agricultural implements small coupes in the degraded Palnad forests do not seem to satisfy the requirements of the people, and the proposal of the writer of this report that larger coupes with lease extending over a number of years should be given a trial has since been approved by Government.

For the improvement of the water-supply in the same division two wells were sunk departmentally, one at Mutukur and the other at Kakirala, at a cost of Rs. 176 and Rs. 133 respectively. The latter had to be abandoned owing to the nature of the soil. Permission was granted to private individuals to repair existing kuntas and spring channels and to construct new tanks. Lopping of leaves of *Hardwickia binata* (yepi) for fodder was also permitted for the reasons stated last year which held good during the year under report. How to work the yepi areas of Vinukonda range for timber purposes has become rather a problem. Working schemes are now being drawn up to meet the demand for yepi leaves as fodder.

No new measures in this direction were undertaken in the other divisions.

(*iii*) *Timber Transit Rules.*

43. There were no rules in force in *Bellary* and *Anantapur* divisions. In *Guntur* and the *Kurnool* divisions the rules were enforced without trouble.

(*iv*) *Jungle Tribes.*

44. *Chenchus.*—A plot of about 100 acres of land near Ahobilam temple in *South Kurnool* division was given to the Chenchus

living there in order to persuade them to settle down and cultivate. A similar proposal has been made in favour of the Baireni Chenchus in the same division.

In *East* and *West Kurnool* divisions the Chenchus were employed on road works, felling of timber, fuel and bamboos, collection of minor forest produce, sowing and planting and early burning operations; they also worked as Forest Guards and Watchers. The works provided for them were sufficient to maintain the working men and their families. In order to train them to become useful members of society and give up their criminal habits they were given a fair start in agricultural work by the provision of a set of agricultural implements free to those Chenchus to whom loans were granted last year. A sum of Rs. 1,574 was sanctioned for cultivation of 175 acres of land in 17 gudems both in the *East* and *West* divisions. Unfortunately, in consequence of the bad season, there was a total failure of crops in all but three of the plots of land in the *West* division and two in the *East* division. The other occupations in which the Chenchus have been instructed are carpentry and basket-making. Rs. 2,000 was sanctioned for promoting these industries and the revenue realized by the sale of articles, prepared at the Industrial School, was Rs. 777 for carpentry and Rs. 186 for basket-making.

Two new educational elementary schools were opened during the year; the total number is now 15. The school at Panyam for the Yerramalais Chenchus was transferred to the American Baptist Mission, Nandyal. The attendance was good in all except 4 of the schools. The 8 Chenchu boys studying in the various forms in the Markapur Board High School continued to draw a scholarship of Rs. 100 each per annum from Government. Rs. 8,843 was spent on the maintenance of schools. Of this Rs. 553 was spent on clothing supplied to school children and Rs. 1,618 on feeding.

Eight crimes were filed against the Chenchus in which 15 persons were involved. The offences reported were voluntarily causing hurt with dangerous weapons and forest offences under section 21 (*e*) of the Forest Act. Ten persons were sent to jail, 1 was fined, 4 were whipped and 6 were acquitted.

One Chenchu warrantee was absconding for some months being involved in a murder case. He surrendered himself to the Assistant Chenchu Officer.

With a view to put down crime and to preserve law and order two influential Chenchus in each gudem were appointed during the year under the designation of Forest Police Talaries on a salary

of Rs. 10 per mensem each, in pursuance of a resolution at a conference held in September last by the District Superintendent of Police, the Conservator of Forests, the 3 Kurnool District Forest Officers, the Assistant Chenchu Officer, and the Deputy Superintendents of Police, Markapur and Kurnool. The Chief Conservator having objected to their payment from forest funds, the posts were abolished and it is hardly possible to record any opinion on the system as it was not tried long enough. The introduction of the Criminal Tribes Act for the Chenchus, which was proposed some time ago, has been deferred as it is hoped that they will settle down and behave properly with the facilities now afforded them by the Forest department to earn a living honestly. It is however doubtful whether the present generation can really be reformed, and it is to the rising generation that attention must be paid in the matter of education and discipline if any permanent improvement is to be expected. It is gratifying to note that appreciable progress in this respect has been made during the ten years that have elapsed since the inception of the scheme.

(v) *Mining and Quarrying.*

45. In *Bellary* division, two licensees, one for prospecting manganese or in a portion of Thonsagiri reserve and another for prospecting chemical earths in a portion of Bellary reserve were granted. The 30 years' lease for mining manganese, Alagilwada Block 'B,' granted by the Board was cancelled by Government and the matter is under correspondence. A lease of 30 years for mining manganese in Thummurguddi and Alagilwada 'A' Block was sanctioned. Two licences for prospecting manganese and another for red earth in unreserved lands were also granted.

In *South Kurnool*, a prospecting licence for manganese in Veligonda reserved forest was granted.

In *West Kurnool* two mining leases, one for steatite and the other for barytes, and four prospecting leases for barytes were granted. The right to quarry and remove slab and building stone from 15 blocks in Dhone and Kurnool ranges had been leased out in previous years at an annual rental of Rs. 13,054 for five years. One of the lessees for slab quarrying requested cancellation of the lease and the request was granted.

(vi) Live Stock.

(a) *Elephants.*

46. Two baggage elephants are maintained in *West Kurnool* division and they are reported to be in good condition.

(*b*) *Other Animals.*

In *South Kurnool* division there were two bulls at the commencement of the year. Seven bulls confiscated in forest offences brought the total number to nine. Two were killed by tigers, three died from disease and one was sold, leaving three at the close of the year.

In *West Kurnool* division there are five bulls in stock.

47. (*viii*) VETERINARY ESTABLISHMENT.—Nil.

48. (*viii*) SUITS.—Nil.

(*ix*) CONTROL OF UNRESERVED LAND BY THE FOREST DEPARTMENT.

49. The control of the lease of tangedu bark in all the divisions and of rela bark and nux vomica in *East* and *West Kurnool*, and the general control of unreserves in two villages of *East Kurnool* division remained with the department.

50. *General.*—All the reserves in *Bellary* division, except a few which were proposed to be retained for experimental purposes or on account of their provincial importance as regards the supply of fuel to Bellary town, the jails and the troops, and of hay to the Military Grass Farms department are likely to be handed over to panchayat management.

In *Anantapur* division there has been agitation from villagers for disforestation of many of the reserves. It is anticipated that most of the reserves of this division will be handed over to panchayats.

The position in the *Kurnool* division is not quite so definite; the main Nallamalai reserves must indubitably remain under the control of the Forest department but a large number of scattered reserves can with advantage be handed over to local management; the Forest Panchayat Officer has not yet extended his operations to *Kurnool* district; it will be advantageous if he can do so at an early date.

In *East Kurnool* division the man-eating tiger referred to in last year's report killed three people during the year, and was not destroyed though a reward of Rs. 500 was offered. A noted man-eating tigress at Diguvametta in *South Kurnool* was shot by Mr. Whitehead.

T. CLEAR,
Acting Conservator of Forests,
Second Circle.

BELLARY,
31*st August* 1924

APPENDIX.

SUMMARY OF PROGRESS DURING THE FIVE YEARS 1919-20 TO 1923-24.

1. *Administration and Control.*—To give a Conservator a chance of gaining a more intimate knowledge of the forests of all his divisions during the course of a year and of familiarising himself on the spot with the outstanding questions in each, it was found necessary to create two more circles; these were sanctioned by the Secretary of State and were formed in 1921. Consequently, this circle, designated as the Second Circle, was formed on 5th February 1921 with headquarters at Bellary. It contains the following six forest divisions:—

Bellary.	East Kurnool.
Anantapur.	South Kurnool.
Guntur.	West Kurnool.

The first three formed part of the old Central Circle and the rest belonged to the Northern Circle. The fourth division in Kurnool district for which Government sanction was accorded, was not formed partly for want of officers and partly as a result of the changed policy of the Government in view of adverse financial conditions and the necessity for retrenchment. The work of the Forest Department was much handicapped during 1920-21 and 1921-22 by the non-co-operation movement which was strongest in Guntur and took the form of refusal to pay grazing fees and of boycott and assault of forest subordinates. The measures taken by the district officers resulted eventually in comparative peace and respect for lawful authority.

In pursuance of the recommendations of the Retrenchment Committee, the reclassification of forests has been going on side by side with the progress in the formation of the panchayats under the Forest Panchayat Officer in Guntur and Bellary districts. As a result of the handing over of all reserves of minor importance for panchayat management, the Adoni range of Bellary district was abolished with effect from 1st October 1923 and with the extension of the panchayat system, it is probable that before long two divisions in the circle may be amalgamated.

2. *Organization.*—The reorganization of the executive and protective staff sanctioned in the previous period was given effect from 1st October 1919.

Three new Assistant Conservators in 1921-22 and two in 1923-24 joined this circle for training.

The Bellary division which was formerly a major division was classed as a minor division during the period consequent on the handing over of the Sandur leased forests to the Sandur Darbar, the amalgamation of the Hospet range with Bellary and Kudligi ranges, and the abolition of the Adoni range which followed the transfer to panchayat management of most of the reserves in that range.

It was found that the continuance of the reorganized sanctioned strength could not be sustained in view of the financial conditions, and a cut in the foresters' cadre was made by the reduction of 15 posts with effect from 1st March 1924. In the office and menial establishments also some reductions were ordered and two peons and one attender of the Conservator's office were removed. The reallocation of the rangers was also sanctioned in G.O. No. 947, Development, dated 11th July 1923.

The time scale of pay for the clerical staff was given effect from 1st March 1921.

3. *Legislation.*—The Fundamental rules replacing the rules of the Civil Service Regulations were introduced with effect from 1st January 1922.

In respect of travelling and other allowances, a separate set of rules for purposes of travelling allowances called the Madras Travelling Allowance Rules were introduced. Forest officers were brought into line with other officers in this respect and some of the advantages formerly conceded on account of the special difficulties of travelling in forest tracts were lost.

4. *Changes in area.*—The area of reserved forests and reserved lands decreased from 4,710 square miles to 4,659 square miles during the quinquennium due to disforestation in *Bellary, Guntur* and *Anantapur* divisions mostly for cultivation purposes.

5. *Settlement.*—Three square miles of reserved land in *Bellary* district were finally settled during the period.

6. *Demarcation.*—The total length of forest boundaries decreased from 6,960 square miles to 6,694 square miles at the end of the period, the decrease being chiefly due to disforestation.

7. *Surveys.*—The Survey of India Party conducted its operations on 1 inch and 2 inches scales in portions of *Guntur, Kurnool* and *Anantapur* districts.

8. *Working plans.*—There were working plans for 1,725 square miles at the commencement of the quinquennium; of these the tentative plans for *South* and *West Kurnool* divisions have lapsed

and are being revised. The working plan for Adoni range in *Bellary* division was cancelled owing to the introduction of the panchayat system of working. The net area for which working plans were in force at the end of the quinquennium was 731 square miles.

The Extra Assistant Conservator who was deputed to prepare a working plan in *South Kurnool* division for the main Nallamalai reserves, prepared one for Sirvel range.

The reconnaissance reports prepared for Owk and Gundlakamma ranges were submitted to the Chief Conservator of Forests, Madras.

The employment of a special working plan staff for the preparation of working plans for all the main Nallamalai reserves where large areas of valuable forest remain unexploited, is very desirable. This is particularly necessary in order to co-ordinate schemes of roads and buildings in this tract, for with the existing communications systematic work over the whole area is not possible.

9. *Communications and Buildings.*—The average annual expenditure on communications, buildings and other works amounted to Rs. 38,971 during the quinquennium against Rs. 37,768 in the previous period. The increase which is slight is due mainly to the rise in the price of materials and higher wages for labour.

The total length of new roads constructed during the period was about 146 miles at an aggregate cost of Rs. 17,580. Besides this, a sum of Rs. 3,900 was contributed every year by the three *Kurnool* divisions towards the upkeep of certain Local Fund roads in which the Forest Department is interested.

Range office buildings at Kudligi, Bapatla, Gooty and Macherla, and various rest-houses in the three *Kurnool* divisions were the important buildings completed during the period.

10. *Forest Offences.*—The average annual number of forest offences fell from 5,919 to 5,093 and the total number of offences reported during the period ending 31st March 1924 was 25,465 against 29,597 for the previous quinquennium. The decrease is perceptible under all heads. A definite reason cannot be given for the fall in the number of cases; this probably varies in different parts of the same district through entirely different causes. It was perhaps mostly due to allowing free grazing in parts of *Anantapur, Bellary* and *Kurnool* districts; another cause was the non-co-operation campaign in *Guntur* district. Fifty-eight cases of assault of forest subordinates in *Guntur* district and two cases in *Anantapur* were reported during this period. One case in

Anantapur, ended in the murder of a Forest Guard, whose widow was granted by the Government a pension of Rs. 8 per month. There were also two sensational cases of forced rescue of cattle found illicitly grazing in reserves in Guntur. To quell this lawlessness and the organized social boycott of forest officials, punitive police were stationed by Government in Guntur for several months.

Rewards to subordinates and others who assisted in the detection of forest offences were disbursed during the period to the extent of nearly Rs. 862. With the development of the panchayat system of managing minor forests, it is hoped that forest offences will appreciably diminish.

11. *Fire Protection.*—The following compares the area under systematic protection with that of the previous quinquennium :—

	Attempted to be protected.	Actually protected.
	ACS.	ACS.
Quinquennium ending 1918–19	3,484	3,048
Do. do. 1923–24	3,977	3,782

The system of early burning started by Mr. Hodgson in 1919-20 has been working satisfactorily; it is confined to the three *Kurnool* divisions. The system is not unpopular with the people.

The total cost incurred during the period under report was Rs. 70,005 against Rs. 2,11,131 in the previous period. The decrease in the cost of fire protection during the period under report was due to employing the ordinary subordinate staff on early burning, and the gradual abolition of special fire patrol staff.

12. *Protection from Cattle.*—The average area open to grazing for all animals except goats every year during the quinquennium was 3,165 square miles against 2,091 square miles in the previous period. The increase in the extent of open area was due to scarcity of fodder outside the reserves owing to drought during several years of the quinquennium. Free grazing also was allowed in parts of *Anantapur* and *Bellary* districts during periods of drought.

In Guntur steps were taken for the supply of yepi leaves as fodder, owing to the scarcity of fodder last year.

The number of animals licensed for grazing fell from 907,728 to 552,421 animals.

The average incidence worked out to 3.7 acres per cow unit against 1.5 acres of the previous quinquennium.

There was a reduction of grazing fees during the period in the following districts as noted below :—

Guntur—
From 12 annas to 8 annas per cow unit

Bellary—
(Harpanahalli range)
From Re. 1 to 8 annas per cow unit.

A committee to enquire into the forest grievances of *Kurnool* district was sanctioned by Government but had not completed its enquiry at the end of the period.

13. *Yield and Outturn.*—The following statement shows the annual average outturn of the forests for the two periods :—

—	Timber and fuel in one thousands of cubic feet.	Bamboos in value.	Minor produce in value
	C.FT.	RS.	RS.
1914-1 to 1918-19	3,266	40,247	5,89,275
1919-20 to 1923-24	2,742	48,901	5,73,971

There was a decrease under timber and fuel due to less removals from unreserved lands, and under minor produce due to high prices realized from tanning barks in the previous quinquennium.

The increase under bamboos is due to exploitation of bamboos by departmental agency through the Chenchus in *East* and *West Kurnool* divisions.

14. *Financial Results.*—The average annual financial results of the last two periods were as follows :—

—	Revenue.	Expenditure.	Surplus or deficit.
	RS.	RS.	RS
Average for 1914-15 to 1918-19 ..	9,29,731	4,48,264	+ 4,81,467
1919-20	11,57,755	4,16 391	+ 7,41,364
1920-21	7,64,740	4,45,135	+ 3,19,605
1921-22	6,31,601	6,84,663	— 53,062
1922-23	7,52,310	7,00,383	+ 51,927
1923-24	8,16,978	6,33,961	+ 1,83,017
	41,23,384	28,80,533	+ 12,42,851
Average for the period ..	8,24,677	5,76,107	+ 2,48,570

The gross revenue decreased by 11.3 per cent, the expenditure increased by 28.5 per cent and the surplus decreased by 48.3 per cent. The decrease in revenue is due to less amount realized under

timber and fuel, and minor produce and the increase under expenditure is due to an all-round increase in the pay of all ranks.

15. *Hill Tribes.*—The Chenchus of Kurnool got very much out of hand in 1919 and 1920, and in 1920 it was found necessary to round them up and capture warrantees who had been at large for years and fancied themselves immune. This was done with great success under the guidance of Mr. W. H. Pitt, Superintendent of Police, who was ably supported by the local officers, and since then the Chenchus have not given much trouble. Education of the rising generation is proceeding on systematic lines and occupation is provided for all the able bodied in the shape of timber, fuel and bamboo felling work, as well as experimental agriculture.

T. CLEAR,

Acting Conservator of Forests,

22nd September 1924. *Second Circle, Bellary.*

ANNUAL ADMINISTRATION REPORT OF THE FOREST DEPARTMENT

FOR THE

YEAR ENDING 31ST MARCH 1924

THIRD CIRCLE.

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

1. Alteration in Area.

1. *Reserved forests.*—There is a net decrease of about seven square miles which was chiefly due to disreservation of about two square miles in *Chingleput*, nearly two square miles in *Chittoor* and three square miles in *North Vellore*. Elsewhere the areas disreserved were insignificant. The disreservation was mainly to satisfy the wants and to remove grievances of adjoining villagers, etc., such as extension of cultivation, exclusion of patta lands, tanks and supply channels, provision for village-site and cremation ground, leper settlement, exclusion of conservancy areas and lands adjoining cultivation, etc.

2. *Reserved lands.*—There is a net decrease of ninety acres under this head. Ninety-seven acres were excluded of which 32 were excluded at settlement in *North Cuddapah* and the balance relating to *North Cuddapah*, *Chittoor* and *North Vellore* transferred to reserved forests. Seven acres were added of which four were due to the correction of the area in *South Cuddapah* and the balance to small additions in *Nellore*.

2. Forest Settlement.

3. The final settlement of Rapur-Veligonda reserves in the *Nellore* district was complete and the final notification was published about the close of the year with effect from 15th May 1924. No settlement is pending in any of the districts of the Circle.

3. Demarcation.

4. Six miles of new demarcation was done in *North Cuddapah* owing to the disreservation of part of a reserve and about seven miles in *Chingleput* and seven and a half miles and an enclosure

in *Chittoor* were permanently demarcated. In *West Cuddapah* Rs. 304-2-0 was spent under B II in cutting boundary lines of about 55 miles and erecting cairns in suitable places in the Kondapuram Range reserves for the purpose of dividing them into suitable blocks for panchayat managemnt. In *Nellore* the missing boundary marks around two reserves of the Kavali Range were replaced at a cost of Rs. 126-10-0.

Five thousand and sixty-one miles of boundary are reported to have been cleared by forest subordinates without extra cost.

4. Forest Surveys.

5. Two reserves in the *North Cuddapah* and one reserve, one tope and part of another tope in *West Cuddapah* divisions were surveyed by the Survey of India Party on the 1 inch equal to 1 mile scale. The aggregate area covered was 5.48 square miles.

6. The coupes of the year were surveyed and roads aligned, etc., by the local staff. The prescribed reference maps were posted up to date.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. Regulation of Management.

Preparation and control of regular working plans.

(*a*) Preparation.

7. A preliminary working plan for the timber, fuel and bamboo forests of the Vonipenta Range of the *North Cuddapah* division received from the District Forest Officer has been returned to him for revision

A tentative plan for working Ganganapalle and Idupulapaya reserves (24.397 square miles) in *West Cuddapah* was approved by the Conservator.

The working plan for Chendragiri Range in *Chittoor* district was sanctioned by the Chief Conservator. Nothing has been done in the case of the other two working plans taken in hand in 1920-21, due to frequent changes of officers with the result that the intimate knowledge of the area requisite for framing a working plan could not be gained by any one of them.

All the working plans of the *North Vellore* division were replaced by a tentative working scheme which was provisionally approved by the Conservator after his personal inspection of the major portion of the localities.

(*b*) Control.

8. The prescriptions of some of the existing working plans could not be adhered to owing to lack of demand and the difficulty of transport and in consequence coupes are often in arrears. In several cases deviations from the sanctioned working plans were sanctioned.

2. COMMUNICATIONS AND BUILDINGS.

9. No new work costing over Rs. 5,000 was sanctioned during the year.

(*a*) *Roads and Bridges.*

10. The expenditure during the year was Rs. 10,153 against Rs. 14,092 in the previous year. The reduction was due to financial stringency, new work being cut down to the minimum. There is no important new work worth mentioning as only Rs. 658 was spent on new work.

No new purchase of tram materials was made during the year in the *Nellore* district.

(*b*) *Buildings.*

11. The expenditure during the year was Rs. 27,618 against Rs. 31,481 in the previous year.

Of this amount, Rs. 12,060 was spent on new work and Rs. 15,558 on repairs and maintenance; the establishment charged under this head fell from Rs. 6,252 to Rs. 5,024 due to the abolition of the post of bungalow watchers wherever possible.

12. The important items of new work were :—

North Cuddapah.—Inspection shed at Rollabodu. Stables and kitchen at Tadugu and compound wall to the Vonipenta Range Office.

South Cuddapah.—Subordinates' quarters at Marlabylu. Kitchen and servants' quarters at Kodur. Inspection sheds at Nendragundampenta, Kothur, Kongamadugu, Magdalapalli and Chenchannakunta. Compound wall to the Chitvel Range Office.

West Cuddapah.—Inspection shed at Mangalabailu.

Nellore district.—Compound wall around Range Officers' quarters, Kavali. Outhouses to Potlur rest-house. Outhouses to Kavali Range quarters (part).

Chingleput.—Subordinates' quarters at *Kambakkam*. A tiled shed over the platform in front of the rest-house at *Sathiavedu*.

Chittoor.—Subordinates' quarters at Mamandur.

North Vellore.—Extension to clerks' and foresters' quarters at Odugathur.

(c) *Miscellaneous.*

13. Expenditure under this head was Rs. 3,499 against Rs. 2,302 in the previous year.

Rupees 2,369 was spent on new work of which the chief item was the eradication of rank vegetation round Mamandur undertaken with a view to improve the sanitation of the village, at a cost of Rs. 958-6-6.

The other items refer to improvement to water-supply.

3. PROTECTION OF FORESTS.

(a) *General protection.*

14. The total number of cases reported during the year was 7,307 against 8,362 in the previous year, involving a decrease of roughly 12.6 per cent. The decrease occurred under all the heads as noted below :—

Cases.	Injury to Forests by Fire.		Unauthorized felling.		Unauthorized grazing.		Other offences		Total.	
	1922-23.	1923-24.	1922-23.	1923-24.	1922-23.	1923-24.	1922-23.	1923-24.	1922-23.	1923-24.
Cases—taken into Court	..	1	1,141	1,244	631	757	72	62	1,844	2,064
Cases compounded ..	1	..	3 695	3,263	2,170	1,569	242	121	6,108	4,953
Cases undecided ..	260	154	142	121	6	7	2	8	410	290
Total ..	261	155	4,978	4 628	2,807	2,333	316	191	8,362	7,307

15. A large decrease—26 per cent—occurred in the *Nellore* district; and is attributed to the better and more vigilant protection of unsold kanchas by the forest subordinates and the better protection of sold kanchas by the kanchadars owing to fines levied each time any irregularity was observed in them and to the imposition of heavier compounding fees in grazing cases.

The decrease is not appreciable in *North* and *South Cuddapah* and *North Vellore.*

The decrease in *West Cuddapah* and *Chittoor* was due to the handing over of several reserves to panchayat management and to the opening to grazing of several closed reserves of Palmaner taluk consequent on the dry season; and that in *Chingleput* was due to several reserves having been leased to kancha panchayats.

Under cases taken to Court there is an increase of 220 chiefly under unauthorized felling and grazing.

There were 290 undetected cases against 410 of the previous year, which is a satisfactory decrease.

16. In all Rs. 392 was distributed as rewards to subordinates and others in connexion with the detection of forest offences.

17. Of the 2,057 cases taken to Court, 1,041 were convicted, and 1,016 acquitted.

Of the 1,016 cases acquitted, 909 were acquitted on payment of compounding fees, 29 cases were withdrawn by the District Forest Officer and only 78 on their demerits which gives a percentage of genuine acquittal of seven which is not unsatisfactory.

18. The total number of cases compounded was 5,447 and the aggregate amount of fees was Rs. 57,697 with an average of about Rs. 10-9-0 per case against 5,974 and Rs. 70,201 in the previous year with an average of about Rs. 12 per case.

(*b*) *Protection from fire.*

19. There was an increase in the area under special protection of 269 square miles, due to a larger area having been taken up for early burning in the *North* and *West Cuddapah* divisions.

20. The total area burnt was 40,419 acres against 458,371 in the previous year.

The aggregate area burnt in the specially protected areas was 25,626 or 2.5 per cent of the area attempted against 285,442 and 32.7 per cent in the previous year.

The decrease was due to the large area burnt in 1922 and the consequent decrease in combustible material.

21. The cost per square mile of successful protection was Rs. 5-9-0 against Rs. 21-12-0 per square mile in the previous year. The cost incurred was less notwithstanding the fact that a greater area was taken up for early burning. Early burning operations in districts such as these are considerably cheaper and more effective, if properly carried out, than the old system of protection from fire by means of fire lines.

22. In the *Cuddapah* and *North Vellore* divisions early burning operations were commenced in January and completed in February; but in Chittoor the operations were commenced in February and March. This is not 'early' but 'late' burning. It is hoped that this will not recur.

The attitude of the people towards early burning was on the whole that of indifference. They got their grass as usual by free

removal in sufficient quantity and had also fresh green grass in the forest for their cattle as a result of these early burning operations.

In *North Cuddapah* on two different occasions the ryots asked that early burning operations might be delayed for a month or so; but when it was explained to them why this could not be done they understood and did not press the matter any further.

In *South Cuddapah* early burning is said to be popular and not a single petition from the ryots complaining against it was received.

In *West Cuddapah* only two complaints were received about scarcity of fodder on account of early burning which were found to be more imaginary than real. The first relates to a petition received by the Collector for opening the closed Pentas in reserves for grazing about the middle of March 1924. When the concession was granted they refused to avail themselves of the concession as the grazing year for which the new permits would be valid was drawing to a close. In the second case the petitioners were found to be selling the grass obtained by the concession of free removal to cartmen. No complaints were received from *Chittoor* and *North Vellore*.

(c) *Protection against cattle.*

23. The following table compares the area closed and opened to grazing during the two years, that under report and the previous year :—

Closed to all animals.	1922-23. Square miles.	1923-24. Square miles.
Whole year	711	647
Part of year	806	634
Open to all animals except goats.		
Whole year	2,483	2,712

The reduction in the area closed during the whole year was due to the opening of the old coupes after the prescribed period of closure, and, in some cases, before the expiry of the period for closure with Conservator's sanction.

The increase in the area opened to grazing for the whole year was also due to several reserves in *Chittoor* partly closed being thrown open for the whole year in accordance with the orders of Government on the Forest Committee's recommendations.

24. Out of 427 kanchas in *Nellore*, 384 were sold at different rates of which nineteen were on long lease for three years and 43 kanchas remained unsold for want of demand due to poor rainfall.

The number of cattle for which grazing permits were purchased decreased from 324,267 to 302,757 cow units. This decrease was contributed by *West Cuddapah, Nellore, Chittoor* and *North Vellore,* due to the dry season and want of pasture in reserves.

The amalgamation during the year of reserves into convenient grazing blocks to afford facilities to villagers who reside at the junction of reserves in the *North Vellore* division also partly contributed to the decrease.

25. There was a decrease from 44,397 to 37,493 in the number of cattle impounded. The decrease was contributed by all the divisions except *North Cuddapah,* in which district the increase was due to the detection of a large number of cases of illicit penning of foreign cattle. The decrease was not very appreciable in *South Cuddapah, Chingleput* and *Chittoor.* The decrease in other divisions was due to the increase in the area opened to grazing and to less number of grazing cases reported during the year.

26. The altered system of collecting grazing fees in the Srihari-kota Range of the *Nellore* division referred to in the previous year's administration report was continued.

(*d*) *Protection against injuries from natural causes.*

27. *Chittoor.*—A sum of Rs. 988-15-0 was spent in eradicating Lantana in the Horsleykonda reserve; uprootal, as an experimental measure, was done at a cost of Rs. 11-14-0 in a four-acre plot with a view to frame a programme for clearing Lantana in the reserve.

28. All noxious growth round Mamandur village is being removed and all prickly-pear killed with poison and buried in pits. The use of atlas preservative for exterminating prickly-pear here is being experimented with to see if this method is cheaper or more costly than others.

29. *Euphorbia* and thorny climbers have been cut in the coupes.

CHAPTER III.—SYLVICULTURE.

SECTION 1.—FORMATION AND REGENERATION OF FORESTS.

(i) *General progress of areas under regeneration.*

30. Generally speaking the year was poor for reproduction by seed and survival of seedlings.

In *West Cuddapah* the regeneration of palmyra trees from seed in the Idupulapaya plantation was very good. Many seedlings are found all over the area which have survived the hot weather.

In *Chingleput* the natural reproduction of *Acacia arabica* in Pulrambakkam reserve was satisfactory.

In the Palar riverside plantations where selection fellings are being carried out, regeneration of blanks is being effected both by planting and by sowing. The latter operation has not been successful. About 50 per cent of the planted seedlings survived. This operation is, however, very costly and has been abandoned.

Reproduction by copice is satisfactory.

(ii) *Establishment of reproduction under Working Plans or Schemes.*

(*a*) Mainly natural.

31. Reproduction by seed of important species is on the whole poor; but in *Chittoor* reproduction of sandal and *Pterocarpus santalinus* and *Pterocarpus marsupium* is good and the sandal is spreading fast. In *North Vellore* the working plan contemplates regeneration by natural means, but the type of forest and the heavy grazing incidence make natural regeneration difficult if not impossible.

(*b*) Mainly artificial.

32. In *West Cuddapah* artificial reproduction is confined to the afforestation of blank areas and abandoned pentas lying within the working circle.

In *North Vellore* artificial regeneration is prescribed for areas exploited for fuel and this is being carried out on a small scale wherever conditions permit it.

(*c*) Afforestation.

33. Nil.

(iii) *Plantations and other forms of regeneration not under Working Plans and Schemes.*

34. Form 75-B furnishes necessary particulars under this head.

South Cuddapah.—The only regular plantation is *Kodur* red sanders plantation. Seedlings of different species were raised in a nursery formed close to the Gunjana river. Young red sanders seedlings, about a year old, were transplanted during September 1923 in two blocks under the old trees and they are coming up well.

West Cuddapah.—About two Madras measures of sandal seeds were sown last year over an area of about half an acre in the Ganganapalle reserve in a locality known as Neerkona where there is a perennial spring. About 80 per cent of the seeds germinated, but most of these died during the summer with the exception

of 26 seedlings which are reported to be doing well. Of the already established sandalwood plantations, one is in Pullalamadugu of Cuddapah Range in two small adjacent plots containing 333 plants and another near Ambabhavi in the Mudumpad slopes of Sanipaya Range containing about 12 seedlings.

Nellore.—There is a plantation of 161.65 acres in the Kollurpad reserves about a furlong from the Ulavapad railway station. The species in the plantation are *Albizzia Lebbek*, *Cassia siamea*, *Nim*, *Pterrocarpus santalinus*, *Hardwickia binata*, *Chloroxylon Swietenia*, etc.

Chittoor.—Cultural operations were undertaken in several areas, but in all cases in which they were unsuccessful, they have been excluded from statement 75-B.

North Vellore.—In the Pichanoor tope, 162 teak, 162 red sanders and 30 *Hardwickia binata* were transplanted from nursery beds and watered by the tope watcher. In the Ambur tope Re. 1-2-0 was spent on baskets for transplanting seedlings of *Hardwickia*, teak and red sanders from the nursery beds to plot II.

In Palamady reserve the plantation of exotics was protected but was not extended during the year.

(iv) *Tending.*

35. Cutting of creepers and climbers affecting standards and sandalwood was carried out generally, and felled coupes were fenced.

In *South Cuddapah* tending was carried on in the improvement felling coupes at a cost of Rs. 324-6-0 and clearing of noxious growth was done in all felled coupes of 1922-23.

In *Nellore*, only light thinnings are carried out periodically in the Kollurpad plantation.

In *North Vellore* dead and dying trees and those interfering with valuable species were removed. Four hundred red sanders and several *Hardwickia* trees not under experimental observation were pruned by the protective staff free of cost. Prickly-pear was removed from planted areas in the Palar riverside plantations.

(v) *General.*

36. *South Cuddapah.*—Sowing of sandal seeds in selected areas in all the ranges proved a failure for want of rain; but plants of the previous years are doing well. The teak plants at Kangamadugu are also doing well; the best of which measures 4′ 8″

in girth at chest height. Some red sanders plants at Kodivengammabhavi were transplanted in the compound of Kodivengammabhavi subordinates' quarters during the rains in November 1923 and they are growing well.

Chittoor.—The Lantana cleared area in Horselykonda reserve was dibbled with tree seeds. Though 70 per cent of the seeds germinated several of them died of drought. Nurseries were also opened at Horselykonda and seedlings of Eucalyptus, *Pterocarpus santalinus, Odoratissima, Dalbergia latifolia, Terminalia tomentosa* were raised for the current year's operations.

Section 2.—Tending of the growing stock.

37. *West Cuddapah.*—In the improvement coupes felled during 1922-23 (five coupes covering an area of 556 acres), tending operations were undertaken during the year under report at a cost of Rs. 290-8-0 to help the growth of red sanders, yelama and billu trees. Climbers and thorny species, which interfered with the growth of the above three principal species, were cut and smeared with Atlas preservative to prevent regrowth.

Chittoor.—Improvement fellings for the benefit of red sanders and other timber yielding species were carried out in three coupes, the area worked being 274 acres. In addition to this, two arrear plots of 26 and $6\frac{1}{4}$ acres respectively in the timber felling series were worked. In two coupes of the Improvement Working Circle coppice shoots of timber species, coming up from stems cut back previously, were thinned, retaining one or two shoots. Sandal was thinned in two topes.

CHAPTER IV—EXPLOITATION.

(*a*) System of Management.

(i) *Major Forest Produce.*

38. The areas under working are classified as follows: —

	Square miles.	Percentage.
Simple coppice	247	25
Coppice with standards	136	14
Improvement fellings	103	11
No definite system	488	50
Total ...	974	100

There is a net increase of 76 square miles over the total reported last year and there are also differences in the detailed figures.

The increase is due to the addition of 85 square miles in the *Chittoor* division due to the working plan for Chendragiri Range under simple coppice system having been sanctioned during the year. This was partly counterbalanced by disreservation of seven square miles and to the reduction in the extent of the annual coupes. The changes in detail are due partly to the above and partly to the change in working.

(ii) *Minor Forest Produce.*

1. Bamboos.

39. There is no change in the method of working.

2. Miscellaneous.

40. Departmental collection of Nux-vomica was undertaken in *North* and *West Cuddapah*, in two ranges of *South Cuddapah* and in three ranges of *Nellore*, as there were no bids or because the bids offered were unsatisfactory. In *North Vellore*, the right to collect Nux-vomica was sold in auction. In *Chingleput* the produce was not sold, nor was it collected departmentally. In *Chittoor*, owing to the fall in the price of Nux-vomica, a rebate of 15 per cent of the lease amount was given to the contractor.

The price of Nux-vomica was low and the quantity collected was not sold in some of the divisions.

In the Sriharikota reserve of the *Nellore* district, the Minor Forest Produce was collected departmentally by the Yenadis. The produce on patta lands outside the reserve was also collected departmentally as usual to prevent smuggling.

The right to collect Tangedu and Rela barks in *North Cuddapah* was leased for three years. Rela (Cassia fistula) bark in *Chittoor* was not leased as the shoots are immature.

Elsewhere all items of minor forest produce were leased for collection.

In the *Cuddapah* division (where the seigniorage for leaf manure has been reduced from Rs. 2 to Re. 1) 1,165 cartloads were removed against 4,608 in the previous year, which was mainly due to the unfavourable season on account of failure of rain and severe drought. As remarked in the previous Administration Report the demand fluctuates with the season, as good rains mean more wet cultivation and a bigger demand for manure leaves.

41. Free removal of grass was generally allowed in all the districts.

(*b*) AGENCY OF EXPLOITATION.

(i) *Departmental Agency.*

(1) Major Produce.

42. The *South Cuddapah* division was the only one in which any regular exploitation of major produce took place. As there was no offer for the purchase of standing growth in three improvement felling coupes, they were worked departmentally. Rs. 2,447 was spent on the whole work and the realization amounted to Rs. 2,894 giving a net profit of Rs. 447 with a small stock on hand valued at Rs. 1,723.

Selected red sander trees were felled for despatch to the British Empire Exhibition, but it was subsequently realized that such posts could not be supplied on a commercial scale and they were not sent. The dead and dying red sanders trees in the Kodur red sanders plantation were extracted departmentally.

43. Other items collected departmentally were obtained from the clearing of boundaries or specially felled for departmental works.

(2) Minor Forest Produce.

44. Except in the Sriharikota reserve of the *Nellore* division where all minor forest produce was collected departmentally and the collection of Nux-vomica in four divisions as noted above, and about three tons of Dividivi pods in *North Vellore* division, the only other items collected departmentally on a small scale were bamboos and thatch grass for the construction and repairs of some departmental buildings.

(ii) *By Purchasers.*

45. The bulk of the exploitation of major and minor forest produce was effected by lessees and permit holders. Four hundred and eighty-six tons of hay were collected by the Military Grass Farm Department from the *North Vellore* and *Chittoor* divisions.

(iii) *Free Grantees.*

46. Free grants were almost entirely for the construction of dwellings destroyed by fire. The exceptions were for the construction of huts in the Kavali (*Nellore* district) criminal settlement and for the construction of police talaiyari tannah huts in *South Cuddapah.*

The following statement shows the quantity and values of free grants :—

Timber.		Bamboos.		Grass and grazing value.	Other minor forest produce value.	Total.
In thousands of cubic feet.	Value.	In number.	Value.			
	Rs.	Rs	Rs.	Rs.	Rs.	Rs.
55·2	7,912	32,558	338	7	545	8,802

(iv) *Rights and privileges.*

47. Two villages in the *North Cuddapah* division have the right of free grazing over an area of 820 acres in the Lankamalai reserve. Two other villages were allowed to graze 220 cows and 4,388 sheep at a concession rate of As. 1-6 each respectively in the Chennupalle reserve. (Reference Board's Proceedings Forest No. 744, Miscellaneous, dated 1st December 1914).

Free grazing of 584 cows and bulls was allowed in the Settigunta reserve of *South Cuddapah* division.

In the *West Cuddapah* division 140 bulls were allowed to graze at the concession rate of As. 1-6 per bull as they are bull-men cattle engaged by the contractors of the department in exploiting the produce in Palakondas of the Vontimitta Range. This has been continued since 1895.

In *Nellore*, the collection of produce from 70 Rokkadayam trees (tree pattas) in the Sriharikota reserve was made by the descendants of the grantees as usual. The Madiga and Mutharaga settlement people at the Udayagiri Durgam Hill reserve were allowed the usual concession of collection of minor forest produce free in the reserves.

(*c*) OUTTURN AND SOURCE OF FOREST PRODUCE.

48. The sub-joined table compares the results of the past year with those of the previous year :—

Agency of exploitation.	Timber in thousands of cubic feet.		Fuel in thousands of cubic feet.		Bamboos value.		Minor forest produce and grazing value.	
	1922-23.	1923-24	1922-23.	1923-24.	1922-23.	1923-24.	1922-23.	1923-24.
					Rs.	Rs.	Rs.	Rs.
1. By Government Agency.	24	14	166	95	224	288	18 955	8,871
2. By purchasers ..	697	710	7,312	7,162	34,056	30,759	3,93,560	3,95,463
3. By free grantees ..	60	55	..	..	370	338	647	552
4. By right holders and privileges.	..	..	..	..	..	..	123	144
Total ..	781	779	7,478	7,257	34,650	31,385	4,13,285	4,05,030

49. The decrease under the departmental removal of timber and fuel was due to the less number of coupes worked departmentally in the *South Cuddapah* division owing to want of demand and to small quantity of fuel obtained in clearing coupe lines in *Chittoor*.

The considerable fall in the revenue from minor forest produce collected departmentally was due to the fall in value of Nux vomica and to the consequent non-sale of the produce collected.

The other differences fall within the normal limits of fluctuation.

CHAPTER V.—FINANCIAL RESULTS.

50. The sub-joined statement compares the results of the year with those of 1922-23 and the previous years: —

	1923-24.	1922-23.	Average for five years ending with 1922-1923.
	Rs.	Rs.	Rs.
Revenue	7,02,546	6,92,109	7,18,222
Deduct refunds	4,517	3,114	10,042
Net revenue .	6,98,029	6,88,995	7,08,180
EXPENDITURE.			
B. Conservancy and Works	1,20,066	1,44,256	1,82,066
C. Establishment and Contingencies	5,31,361	5,41,972	4,48,266
Total ..	6,51,427	6,86,228	6,30,332
Net result ..	+46,602	+2,767	+ 77,848

51. There is considerable improvement in the surplus as compared with the previous year. Only *Nellore*, *Chittoor* and *North Vellore* showed a surplus, the deficits in other divisions varying from Rs. 587 to Rs. 32,376.

The increase in revenue was chiefly due to the sale of five casuarina coupes during the year against one coupe during the previous year in *Nellore* and to the larger revenue realized from unreserves in *North Cuddapah*, *Chingleput* and *North Vellore* and to the high rates fetched for fuel coupes in *Chingleput*. It was partly counterbalanced by decrease under I (*e*), II (*d*) and V (*a*).

The decrease under I (*e*) was due to the fall in prices for Nux vomica in consequence of which the stock at Sriharikota was not sold during the year.

The decrease under II (*d*) was due to the adoption of a uniform rate of four annas per acre in leasing kanchas in accordance with the kancha rules in Nellore, to the stoppage of issue of grazing permits on account of the abolition of Kondapuram Range in *West Cuddapah*, to the transfer of more reserves to panchayats in *Chittoor* and *North Vellore* and also to the bad season.

The decrease under V (*a*) was due to the decrease in the number of cases compounded and to the adoption of low standard of compounding fees.

52. The decrease in expenditure under B and C was due to rigid economy on works, establishment and contingencies and to the restriction on touring and the introduction of the revised travelling allowance rules.

CHAPTER VI.—RESEARCH AND EXPERIMENTS.

53. The experiments detailed in the reports of 1921-22 have not been completed and no useful conclusions can be drawn yet. The "experiment register" for recording approved experiments in the Conservator's office is maintained and has been posted up to date.

54. *Chittoor.*—The sandal experimental area at Horsleykonda was maintained and the bund was kept clean of all growth except sandalwood; as many as 12 poles and almost all the seedlings died during the hot weather. At present about 57 of the former and two of the latter are alive.

55. Observations with a view to find out the development of independent roots by coppice begun by the Vernacular Training School in 1922 in the *North Cuddapah* division was continued. Observations tend to show that the development of independent roots is very slow and generally does not take place until the parent roots begin to decay.

CHAPTER VII.—ADMINISTRATION.

56. The proposal to transfer Sriharikota Range to the *Chingleput* district mentioned in the last year's report is being kept in abeyance pending the decision of Government on the Chief Conservator's proposals in regard to Minor Forests.

All the reserves of the Kondapuram Range in the *West Cuddapah* division were handed over to panchayats and the range was abolished from 1st February 1924.

57. The health of the establishment was not satisfactory in *South Cuddapah* and in parts of *Nellore, Chittoor* and *North Vellore*. Precautions were taken in regard to sanitation at Mamandur. In

West Cuddapah one Forester died while on long leave. In *Chittoor* district one Forest Guard died of smallpox and one Forester died of malaria contracted during his service at Mamandur.

58. *Tours of inspecting officers.*—The Conservator spent 221 days on tour and visited all the divisions. Inspection notes were submitted to the Chief Conservator wherever there was matter of sufficient importance for record. All the District Forest Offices except *Chittoor, West Cuddapah* and *South Cuddapah* divisions were inspected. These were inspected after the close of the year.

59. *District Forest Officers.*—All officers except *Chingleput* spent the prescribed minimum or more on tour.

The short touring in the *Chingleput* division was due to change and illness of officers.

All Range offices except three were inspected during the year and these three were inspected just after the close of the year.

60. *Audits.*—All the District Forest offices were inspected by the Audit Officers with satisfactory results.

61. *Madras Forest College.*—The two students one in the senior and one in the junior divisions were well reported on. The senior student obtained an Honours certificate at the final examination in June 1924 and has returned from the College.

62. *Vernacular Training School.*—The 1923 session was wound up in August and has been separately reported on.

The current year's session began in February 1924 under the direction of Honours Ranger M.R.Ry. S. Ramachandra Ayyar, with 30 students of which six are from the Second Circle.

A separate report will be submitted in due course after the winding up of the session in August 1924.

Five students from *North Vellore* division were deputed to the Vernacular Training School in the Fourth Circle where the instruction is in Tamil.

63. *Conduct of establishment.*—A Ranger who was prosecuted and removed from service for extortion was restored to his appointment on appeal. One Ranger was temporarily reduced to a lower grade for disobedience to orders and another was reduced from I to IV grade for serious neglect of duty.

The conduct of the protective staff continued to be unsatisfactory.

One Forester and one Forest Guard in the *North Cuddapah* division were brutally murdered while in the discharge of their duties. The Government were pleased to grant a life pension of Rs. 15 per month to the widow of the deceased Forester and a gratuity of Rs. 100 to the father of the deceased Guard.

CHAPTER VIII.—GENERAL.

(i) *Formation and Management of Panchayats.*

64. The panchayats are now being managed by a special staff. A list of reserves for which panchayats could be formed was submitted to the Chief Conservator of Forests and approved by him. No new panchayats were formed in *Nellore* and *Chingleput*. Two reserves in *North Cuddapah* and all the reserves of Kondapuram Range and two reserves of Ganganapalle Range in *West Cuddapah* were handed over to panchayats during the year. Formation of panchayats for three reserves in *South Cuddapah* was sanctioned but the reserves were not handed over to panchayat management.

Thirty-two panchayats in *Chittoor*, five panchayats in *North Vellore* and two panchayats for certain unreserves in *West Cuddapah* were newly formed during the year.

The Special Panchayat Officer has been reviewing the work of the panchayats once every quarter.

(ii) *Conferences and meetings.*

65. In *Chittoor*, a local forest committee was formed during the year under orders of Government to enquire into the grievances of the ryots relating to the proximity of reserves to cultivated fields. The committee submitted its report to Government, and Government orders have been issued.

(iii) *Measures for the improvement of local supplies and facilities.*

66. Repairs were effected to some wells and watering places in all districts except *West Cuddapah* where natural perennial springs exist in the forests.

Owing to drought permission was granted in *West Cuddapah* to cattle licensed in one block to go to the adjoining block or closed areas for water. Where water facilities have been wanting, permission has been granted to all applicants for repairing water sources in reserves at their own cost.

67. In *North Vellore*, in cases of necessity, closed areas were thrown open to grazing. The requirements of the population living close to forests in regard to small timber and fuel are generally met from coupes located nearby and contractors are required to supply their wants at cost price.

68. In *North Cuddapah one* timber improvement coupe and *four* fuel coupes were leased out to Co-operative Societies of depressed classes at concession rates; the work turned out was satisfactory.

In *Nellore* one new fuel coupe was opened to meet local demand.

In *Chittoor* one coupe was worked departmentally to meet the demands of the ryots for fuel.

In *North Vellore* one fuel coupe was leased to Adi-Dravida Wood Cutters' Society; but the working of the coupe was not satisfactory. Another coupe was leased to a missionary on behalf of the Mission Industrial School, Ambur. This coupe was worked well. All possible facilities are afforded to such societies.

(iv) *Timber Transit Rules.*

69. The special set of rules framed for the transit of sandal-wood for the *Chittoor* and *North Arcot* divisions have not yet been sanctioned. The Chief Conservator called for a further report to be made in September 1924. As regards the Timber Transit Rules existing in *Chittoor* division, the District Forest Officer has remarked that the exclusion of zamindaris from the scheduled area is being taken advantage of by smugglers to illicitly remove and transport sandal-wood through them.

There is no complaint regarding the working of the rules in other divisions.

(v) *Jungle Tribes.*

70. As reported in the previous year, the Yenadis in Srihari-kota in the *Nellore* district are employed in the collection of minor produce; they are further encouraged by the grant of inams in the shape of rice and cloth every half year. To keep them from the clutches of the money-lender and to make them lead a more homely and less wandering life they were pursuaded to lay by a portion of the rewards and to deposit them in the Postal Savings Bank. Savings Bank accounts were opened on their behalf.

In *North Vellore*, the Javadi Malayalis live in the Ambur, Arsambat, Thellai and Athiyur reserves. They are mostly employed by contractors in exploiting bamboos, minor forest produce, etc.; they are given special concession in the matter of grazing their cattle at a reduced rate of three annas per cow unit against eight annas paid by plainsmen in return for assistance in protection of reserves. The protection of reserves on the whole was not quite satisfactory and only a portion of the grazing fees was refunded to the headmen as a punishment for neglect of duty. The headmen have been warned to abide by the conditions of their agreements in regard to the protection of reserves.

(vi) *Mining and Quarrying.*

71. There is nothing of importance to report under this head.

In *Nellore*, mica mining continued in some of the reserves of Rapur and Nellore Ranges; but its control is in the hands of the Revenue Department.

(vii) *Live Stock.*

72. The live stock consists of two buffaloes at Horsleykonda, one bullock at Palmaner in *Chittoor* district and one buffalo at Kambakkam in *Chingleput* district. They are kept to meet the difficulties in watering owing to the distance of the water sources from the bungalows. They are looked after by the local staff without extra cost.

(viii) *Veterinary Establishment.*

73. Nil.

(ix) *Suits.*

74. In the Pamaleru suit in the *South Cuddapah* division referred to in the previous year's Administration Report, the arrears due by the insolvent defendant were eventually written off by Government as there was no prospect of recovery by the resale of his property.

A suit has been filed in the District Munsif's Court, Vellore, against the tangedu bark contractor Vati Ibrahim Sahib for recovery of the balance of Rs. 2,050 due by him on account of his contract in the *South Cuddapah* division. It has not been heard yet.

The result of the appeal preferred by the Zamindar of Bangarupaliem in the *Chittoor* district is not yet known.

(x) *Collectors' Remarks.*

75. The following forwarding endorsements were made by Collectors when transmitting the district reports:—

Collector of Cuddapah.

Forwarded.

I have no remarks to offer.

Collector of Chittoor.

Forwarded.

2. The period for which the closed reserves of Palmaner taluk were thrown open for free grazing on account of the unfavourable season will expire by the end of this month and the concession should not materially affect the issue of grazing permits for the current fasli.

3. The decrease in the number of fires and in the extent burnt is satisfactory and, I think, rightly attributed by the District Forest Officer to the vigilance on the part of the subordinate staff as well as to their more cordial relations with the public.

4. The loss due to the late burning operations in Palmaner Range in spite of clear instructions is regrettable. It is hoped that persons responsible have been suitably dealt with.

5. The increase in the number of reserves under panchayat management is satisfactory. It seems, however, probable as pointed out by the District Forest Officer that the reduction in the rate of grazing fee may retard to some extent the progress in the formation of new panchayats in the future.

Collector of Nellore.

I do not know what I can usefully add. *Nellore* forests seem useful neither as timber or fuel producers, as grazier areas, nor (except perhaps the *Veligondas*) as water source protectors. However, such as they are, they have been administered as efficiently as possible by Mr. Chengappa.

Collector of Chingleput.

Forwarded.

Forest administration appears to have been carried on smoothly and efficiently. I hope to come very soon to a final arrangement as to the disforestation or transfer to panchayats of reserves not to be retained under the control of the Forest Department.

Collector of North Arcot.

Nil.

T. A. WHITEHEAD,
Acting Conservator of Forests,
Third Circle.

1st *September* 1924.

APPENDIX.

SUMMARY OF PROGRESS DURING THE FIVE YEARS 1919-20 TO 1923-24.

ADMINISTRATION AND CONTROL.

1. The most important change during the period under review was the creation of two new Conservatorships for the Presidency. This necessitated alterations in the circle charges. In consequence, the old Central Circle was formed partly into the Second and partly into the Third Circles about the close of the year 1920-21. The latter comprises the three *Cuddapah*, the *Nellore*, *Chittoor*, *North Vellore* (transferred from the former Southern Circle) and *Chingleput* divisions. It was decided to remove the headquarters of the circle from the Presidency town for several reasons. Temporarily the headquarters of the Conservator was located at *Chittoor* though the office remained in Madras for lack of accommodation; the headquarters of the Conservator was subsequently transferred to Madras in 1923.

2. The following officers were in charge of the circle during the quinquennium ending with the year 1923-24 :—

Year.	Name of officer.	Period during which he was in charge.
1919-20 ...	Mr. A. B. Jackson ...	1st July 1919 to 30th June 1920.
1920-21 ...	Mr. A. B. Jackson ...	1st July 1920 to 3rd February 1921.
	Mr. C. E. C. Fischer ...	4th February 1921 to 31st March 1921.
1921-22 ...	Do. ...	1st April 1921 to 31st March 1922.
1922-23 ...	Do. ...	1st April 1922 to 31st March 1923.
1923-24 ...	Do. ...	1st April 1923 to 10th October 1923.
	Mr. T. A. Whitehead ...	11th October 1923 to 31st March 1924.

COMMITTEE.

3. During 1922-23 a committee was formed with a view to effect retrenchment in the Forest Department. It passed certain resolutions recommending transfer of charge of all minor forests to Collectors, pending extension of panchayat system, and the employment of the trained staff on the development of the resources of the very valuable property which the State possesses in its timber forests (major forests).

PANCHAYATS.

4. The system of panchayat management underwent a radical change during the quinquennial period. The old system was to hand over the class V forests which are mostly fitted for grazing

to panchayats whose work was supervised by the local Land Revenue staff. This system having been found unsatisfactory, a change was effected in the year 1922 by appointing a special staff to form panchayats and to control their work. With the appointment of the special staff, even areas under classes II, III and IV were transferred to Panchayat Management and the Panchayatdars were given control not only over grazing but also over the exploitation of the tree growth and Minor Forest Produce in the Panchayat areas. The supervision of the District Forest Officer and his staff over the working of the Panchayat was completely removed and the special Panchayat staff was entrusted with the duty of limiting the grazing incidence to the possibility and with the supervision of cultural operations in Panchayat reserves.

5. At the beginning of the quinquennium fifty-four reserves were under the control of the Panchayats. At its close, eighty-six reserves were managed by Panchayats.

CHANGES IN THE CONTROLLING AND EXECUTIVE CHARGES.

6. All the reserves of the Kondapuram Range in the *West Cuddapah* division were handed over to panchayats and the range was abolished from 1st February 1924.

7. *Organization.*—The Subordinate Forest Service was reorganized in the year 1919-20 with effect from 1st October 1919. The temporary posts of Foresters and Forest Guards were transferred to the permanent scale. The class of 'Deputy Ranger' was abolished. A time scale of pay for the clerical staff was fixed and the pay of Rangers and Foresters was revised from 1st March 1921.

8. *Change in area.*—

	At commencement of the period.	At close of the period.
	SQ. MLS.	SQ MLS.
Reserved forests	4,019	3,993
Reserved lands	17	12

9. *Reserved forests.*—Seven square miles were transferred from reserved lands but 33 square miles were disafforested. This resulted in a net reduction of 26 square miles of reserved forests.

10. *Reserved lands.*—Two square miles were added of which one was due to rectification, but seven square miles were transferred to reserved forest, thus resulting in a net deduction of five square miles of reserved lands.

11. *Forest Settlement.*—The settlement in the case of small extensions and additions to the existing reserved forests stated to be pending at the close of the previous quinquennium was completed during the period under review. No settlement is pending in any of the districts of this Circle.

12. *Demarcation.*—The total length of boundaries artificially demarcated at the close of 1918-19 was 7,635 miles as compared with 7,556 miles at the close of the quinquennium. The decrease was due to disforestation of reserves.

13. *Forest Surveys.*—117.15 square miles on the 2-inches scale and 308.17 square miles on the 1-inch scale were surveyed by the Survey of India Party during the years under review.

14. In 1919-20, the boundary between the Musureddipalli Shrotriyam and Sancherla reserved forest in Porumamilla Range of *North Cuddapah* as settled in the civil suit was surveyed by a Surveyor deputed by the Deputy Surveyor of the Madras Survey. Departmental surveys call for no remarks.

15. *Working plans.*—At the end of the year 1918-19 there were working plans for 829 square miles; during the quinquennium working plans were compiled for 185 square miles. The area of Palar plantations (two square miles) for which working plans had already been sanctioned was also added. Temporary working schemes for 37 square miles were sanctioned; but working plans for 54 square miles were cancelled on account of the impossibility of carrying out the provisions, disafforestation of areas and revisions. There were 999 square miles covered by working plans at the close of the quinquennium.

16. Many of the existing working plans cannot be worked strictly in accordance with the prescriptions owing to lack of demand. Most of the working plans require revision; but until a special working plans branch is sanctioned no satisfactory progress in the preparation of new working plans or revision of old ones is possible.

17. *Communications and buildings.*—The average annual expenditure on communications and buildings and other works amounted to Rs. 55,240 during the period against Rs. 41,436 during the previous five years as noted below :—

—	Roads.	Buildings.		Total
	Rs.	Rs	Rs.	Rs.
1914-15 to 1918-19 average ..	15,811	24,399	1,226	41,436
1919-20 to 1923-24 „ ..	17,570	34,881	2,789	55,240

18. The increase was due partly to some of the important works which were kept in abeyance due to financial stringency on account of war having been subsequently undertaken and partly to the increase in the price of materials and labour during the period under review.

19. *Forest offences.*—The average annual number of forest offences during the quinquennium under review was 6,866 against 6,714 during the previous five years as noted below :—

—	Illicit firing.	Illicit felling.	Illicit grazing.	Other offences.	Total.
	No.	No.	No.	No.	No.
1914-15 to 1918-19 ..	185	3,893	2,426	211	6,715
1919-20 to 1923-24 ..	216	4,023	2,368	259	6,866
Difference ..	+31	+130	-58	+48	+151

The increase is not very appreciable.

20. *Fire protection.*—During the period under review the average annual area under systematic protection amounted to 1,576 square miles, the average failure being 13 per cent, whereas the average area during the five years ending with 1918-19 was 1,527 square miles with an average failure of 13.7 per cent. The increase in the area as compared with the previous five years was due to a larger area having been brought under early burning operations in *Cuddapah.*

21. *Protection from cattle.*—Reserved forests were entirely closed to goats. The average area annually open to all animals other than goats decreased by 84 square miles, the average area open to grazing being 3,257 square miles. During the same period the average forest area amounted to 4,006 square miles or 36 square miles less than during the previous quinquennium.

22. The average number of all animals in cow units admitted to graze decreased from 434,075 in the previous quinquennium to 303,088 in the period under review. The decrease was due to poorer rainfall and consequent scarcity of grass.

23. In *West Cuddapah* no attempt was made to limit the incidence to the possibility of the forests nor were any restrictions placed on the penta system of grazing. One special feature in the matter of grazing in this division is the acquisition of all enclosures and pentas from the possession of private individuals to Government. Two thousand eight hundred and sixty-four acres of enclosures were acquired to increase the area of pentas for grazing cattle at a cost of Rs. 9,541.

24. In *Chingleput* the kancha system of grazing which was introduced in 1917-18 has gained popularity and the villagers formed themselves into panchayats and undertook the management of kanchas or grazing blocks on long leases subject to favourable conditions and limited restrictions and their management was generally satisfactory.

25. In *North Vellore* the forest village system was introduced for the Malayalee cattle in the Thellai reserved forest.

26. *Yield and Outturn.*—The following statement shows the average annual outturn of major and minor produce for the two periods :—

—	Timber and Fuel in thousands of cubic feet.	Bamboos. Value.	Minor For Produce. Value.
		Rs.	Rs.
1914-15 to 1918-19	6,137	36,296	4,28,569
1919-20 to 1923-24	7,998	26,167	4,8 ,738

27. The average annual outturn of timber and fuel and the average value of minor produce increased by 23.2 and 10.8 per cent respectively while the outturn of bamboos decreased by 27.9 per cent.

28. The increase under timber and fuel was due to a larger area being worked and that under minor produce to very high prices offered for Tangedu bark and Nux-vomica. The decrease under bamboos was due to the poor growth in the bamboo compartments and to the non-sale of certain bamboo compartments.

29. *Financial results.*—The average annual financial results for the last two periods were as follows :—

—	Revenue.	Expenditure.	Surplus.
	Rs.	Rs.	Rs.
Quinquennium ending 1918-19 ..	6,81,282	4,16,619	+ 2,64,663
Do. ending 1923-24 ..	7,03,865	6,46,931	+ 56,934

30. The increase in revenue was due chiefly to very high prices obtained for Tangedu bark leases in all districts during 1919-20.

31. The increase in expediture was chiefly under salaries and allowances due to the improvement in the pay and allowances of controlling officers and to the reorganization of executive and protective staff.

32. *Forest education.*—During the period under review one probationary Ranger and 11 foresters were deputed to the Madras Forest College; one of the foresters was sent back from the College for incapacity to follow the course; of the remaining 11 that successfully underwent training, 4 obtained Honours certificate and 7 higher standard certificates.

33. *Vernacular Training School.*—The school has been permanently located in *North Cuddapah* as the division has all facilities for training the students. One hundred and forty-six candidates on the whole were trained in the school during the period under review.

T. A. WHITEHEAD,
Acting Conservator of Forests,
Third Circle.

1st September 1924.

ANNUAL ADMINISTRATION REPORT OF THE FOREST DEPARTMENT

FOR THE

YEAR ENDING 31ST MARCH 1924

FOURTH CIRCLE.

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

1. ALTERATION IN AREA.

Reserved forests.—Two square miles were disforested and seven square miles were added during the year partly owing to correction of area calculations. The total area at the end of the year was 2,703 square miles against 2,698 square miles of the previous year

Reserved lands.—The area decreased from 57 square miles to 51 square miles due to transfer of areas to reserved forests mostly in *South Salem* division.

2. FOREST SETTLEMENT.

2. Six blocks with an area of $5\frac{1}{2}$ square miles were finally settled during the year.

3. DEMARCATION.

3. Thirty-eight miles were finally demarcated during the year.

4. FOREST SURVEYS.

(*a*) *By the Survey of India.*

4. Nil.

(*b*) *By Madras Survey.*

5. The party completed the work in Vriddhachalam taluk (East *Salem* division). The resurvey of reserves in all taluks of the *Trichinopoly* district has been completed.

(*c*) *By Departmental Survey.*

6. The survey of fuel coupes was done departmentally as usual, but was practically left unchecked by the District Forest Officers until after the sales.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. Regulation of Management.

Preparation and control of regular working plans.

7. *Preparation.*—No regular working plan was sanctioned during the year. A revised scheme for working ten bamboo series, viz., Yerimalai, Mallapuram Ghat, Kurumbapatti, Pannikarudu, Kuttar, Bodakad, Kapputhu, Manjavadi, Kanjeri and Pelapalli and a revised scheme for six fuel series, viz., Kurumbapatti, Pannaikarudu, Kanjeri, Pelapalli, Yerimalai and Lokur in Shevaroys West range, *Central Salem* division, were sanctioned by the Chief Conservator. The Conservator has sanctioned a scheme for working fuel on the lower slopes of Ammapalayam and Sobanapuram series in Musiri range, Ladapuram, Thondamanthurai, and Arasalur series in Perambalur range and Erumaipatti, Bodinayakanpatti and Varagur series in Namakkal range for fuel, a scheme to work the bamboo in Atur-Pachamalai and one for tending sandal on the Pachamalais on a three-year cycle in *South Salem*. The District Forest Officers, *South* and *West Vellore*, have each prepared a working plan for the whole division for all operations, except sandalwood and it awaits the Chief Conservator's sanction. In *South Vellore*, a scheme for working the upper plateau in the Valasamalai reserve was based on sample plots aggregating $1\frac{1}{2}$ acres out of 2,640 acres and requires a good deal more field work before it can be seriously considered.

8. *Control.*—The prescriptions of the following working plans were adhered to except for small deviations:—

(1) Sandalwood working plans of the Javadis and Yelagiris in the *South* and *West Vellore* divisions.

(2) Sandalwood working plans for the Hosur taluk, *North Salem* division, except in areas affected with spike.

(3) Preliminary working plans for the sandalwood areas in the other three *Salem* divisions.

(4) Working plans for bamboo and minor forest produce in *South Vellore* and for bamboos in *West Vellore*.

(5) Working plan for the Kavaramalai working-circle, revised schemes for ten bamboo series and six fuel series sanctioned by the Chief Conservator and five fuel series sanctioned by the Conservator in *Central Salem*.

(6) Working plan for the fuel areas except Varagur fuel series in *South Salem*.

As stated last year, the prescriptions of the Hosur sandalwood working plan for the seven felling series in Denkanikota range were suspended with the sanction of the Chief Conservator, owing to the outbreak of spike as the whole staff was fully occupied by the

extraction of the diseased trees. The other working plans are either obsolete, defective, out of date or not worked for want of demand. Revision of some of the working plans is under consideration.

2. Communications and Buildings.

(a) *Roads and Bridges.*

9. The expenditure on new works and repairs during the year was Rs. 3,897 and Rs. 9,074 respectively against Rs. 5,292 and Rs. 16,093 in the previous year.

Javadi road works.—Both the Amerdi-Nadanur road and Komattiveri-Patrakad road were completed and handed over to the District Forest Officer, *South Vellore*, by the Forest Engineer during the year; the former was found to be unfinished. The more important new works, all really petty ones, were the construction of an improved cart-track from Veeralur to Jambumalai felling series in *South Vellore*, the construction of the deviation of the Denkanikota-Aiyur road in *North Salem*, and in *South Salem*, further extension of Kottapatti-Veeramalai road, construction of a portion of the Mavar-Thammampatti road and the metalling and gravelling the first mile of the Kalpatti-Pillayarnatham road.

The following new works were also taken up during the year :—

West Vellore.—The alignment of a cart-track from Rajapalayam to Sherkanur and of an inspection path from the Andiappanur-Kambugudi road to Vasanthapuram.

Central Salem.—Alignment of a small portion of Pudupatti-Pillayarkoil extension.

(b) *Buildings.*

10. The cost of new buildings and the maintenance of existing ones (including the pay of watchers) during the year was Rs. 7,707 and Rs. 11,275 respectively against Rs. 2,517 and Rs. 11,191 in the previous year. The important new buildings constructed were :—

South Vellore.—(1) Part construction of Range officer's quarters at Santhavasal.

(2) Part constructoin of subordinates quarters at Nadanur.

(3) Completing the construction of the kitchen and godown at Pavunjipattu.

(4) Converting the old sandalwood godown at Tiruvannamalai into a forest range office.

(4) Construction of outhouses at Pakkam.

West Vellore.—(1) Completing the construction of Range office at Krishnagiri.
(2) Construction of Subordinates' quarters at Pudur.
(3) Part construction of Range Office building at Alangayam.

North Salem.—(1) Conversion of the timber shed at dankanikota into sandalwood godown.

South Salem.—(1) Part construdtion of Subordinates' quarters at Poosaripatti.
(2) Part construction of Inspection shed at Malayalapatti, dismantling the Rest House.
(3) Construction of Inspection sheds at Kanapadi and Periya-Varagur.
(4) Construction of kitchen and servants' quarters at Valappur and Subordinates quarters at Kalpatti.

(*c*) *Miscellaneous.*

11. The cost of new works and repairs was Rs. 1,017 and Rs. 720 respectively against Rs. 314 and Rs. 672 in the previous year. The important new works undertaken were :—

South Vellore.—(1) Construction of wells at Santhavasal and Nadanur.
(2) Completing the work of covering the well at Patrakad for taking a force pump.

West Vellore.—(1) Construction of a draw well at Pudur.

The expenditure on repairs was mainly on the improvements of the existing sources of water-supply in all the districts and repair of compound walls of the buildings in *North Salem.*

(3) PROTECTION OF FORESTS.

(*a*) *General Protection.*

12. The following statement shows the offences registered during the year :—

	1923-24 Number.	1922-23 Number.	
Injury to forest by fire	218	319	Decrease.
Unauthorized felling	7,717	7,731	,,
,, grazing	1,483	1,636	,,
Other offences	253	443	
Total ...	9,671	10,129	

The decrease is under all items. The decrease under 'Injury to forests by fire' was chiefly in *South Salem*. This is partly due to the fact that the season was so dry that the grass did not grow, partly to more attention to the clearing of the top boundary lines and partly to the complete prohibition of Ponakad cultivation. The decrease under unauthorized grazing was chiefly in *West Vellore*, *East*, *North* and *South Salem* divisions and due to throwing open two more reserves to Panchayat management in *West Vellore* and in three *Salem* divisions to the dry year and consequent scarcity of fodder in reserves. The decrease under other offences was chiefly in *East* and *South Salem* and is due to a large number of poor people who used to make a living by stealing forest produce, having migrated to Ceylon and other places for work on account of famine condition in *East Salem* and to the prohibition of Ponakad cultivation in *South Salem*. The decrease under unauthorized felling is small.

Cases brought to trial.

Year.	Number.	Convictions.	Acquittals.	Percentage of failure.
1922-23	2,215	1,981	234	10·56
1923-24	2,990	2,568	422	14·11

The increase is chiefly in *South Vellore* due to the withdrawal of a large number of cases as the accused failed to pay compounding fees and left for Penang and other places to eke out their livelihood on account of adverse season.

13. A sum of Rs. 74,035 was collected as compounding fees during the year against Rs. 72,944 in the previous year. The instructions issued in G.O. No. 1990, Revenue, dated 13th June 1910, were generally followed in fixing compounding fees.

Patrol System.

14. The patrol system was in force in *South Salem* only and has given satisfactory results during the year. The Special Patrol Party secured not only better protection by timely prevention of crimes but also worked honestly in reporting a large number of goat browsing cases as 3,192 goats were impounded during the year against 2,087 goats in the previous year. The revenue collected from grazing has risen from Rs. 27,740 to Rs. 29,730 this year. In

an important case of illicit browsing of goats belonging to the Mittadar of Sendamangalam the subordinates were assaulted and the accused were find Rs. 200.

Rewards.

15. A sum of Rs. 25 was disbursed during the year in *South Vellore* for smart detection of forest offences by subordinates and Rs. 50 was paid to a Forester in charge of a Patrol party in *South Salem* which detected 22 cases involving 1,114 goats, 263 sheep and 27 cows resulting in the realization of Rs. 1,300 as compounding fees.

(*b*) *Protection from fire.*

16. *Protection from fire.*—The total area attempted to be protected from fire during the calendar year 1923 was 2,632 square miles of which 2,616 square miles were successfully protected; so. we were lucky. The cost was Rs. 5,197. Form 72 shows the area attempted to be protected, cost of protection and that actually protected. Appendix A shows the details and the causes of fires.

Special protection.—The area which was under special protection was 1,082 square miles as compared with 1,096 square miles in the previous year. An area of 1,075 square miles was successfully fire protected during the year against 1,013 square miles in the previous year. The percentage of failure being .61 against 7.57 in the previous year. There was a decrease in all districts due to timely fall of a few showers of rain during the fire season and better protection. In *North* and *Central Salem* divisions, free cutting of grass in open and closed areas was allowed for want of proper rain and fodder grass and this tended to reduce the area burnt. In South Salem the decrease is also due to the absence of grass owing to the dry year, to enforcing the prohibition of Ponakkadu cultivation in unreserves adjoining reserved forests and to the clearing of reserve boundary lines running along the top of the slopes.

General protection.—The area under general protection was 1,550 square miles against 1,532 square miles in the previous year, the percentage of failure being .58 against 8.39 in the previous year. The reasons given for the decrease under Special Protection hold good here also. The area burnt was 9 square miles.

Early burning.—In North Salem, a start was made at early burning; the District Forest Officer was of opinion that it is not of much use besides proving a great hardship to cattle during the dry

weather. It is doubtful if he has read the papers which led up to the order to burn early. The present District Forest Officer is of opinion that burning of fire lines is not necessary for two or three years as many fires are started by the carelessness of subordinates in burning lines. With an adequate system of roads and cleared lines, it should be possible to control fires within limits. In Central Salem, this system was not done apparently on the plea that there were early showers in 1923.

(*c*) *Protection from cattle.*

17. There is an increase in the number of cattle impounded in *North, Central and South Salem* and decrease in *South* and *West Vellore* and *East Salem,* and Appendix B shows details. The increase is attributed to the successful detection of cases and the decrease to the vigilant protection by the subordinates and insisting on the usual permit holders to take out permits without evasion.

(*d*) *Protection against injuries from natural causes.*

18. *Prickly pear.*—This pest was as usual cleared to a small extent by the Malayalees on the upper slopes and plateau of the Chitteris in *East Salem.* Owing to prohibitive cost no attempt was made to eradicate this pest from this and other divisions. An estimate called for for a particular reserve in *North Salem* amounted to over 18 lakhs of rupees!

Lantana.—This is prevalent in the Sholamathi reserve of Perambalur range and in portions of the Musiri-Pachamalais and in the Jambuthu reserved forest of the Namakkal-Kollimalais. Owing to the financial stringency, no attempt was made to eradicate it.

Creeper cutting.—This was as usual done in all sandalwood areas.

Spike.—This is dealt with under research work.

Bison.—Some damage was caused to sandal saplings in Valasamalai reserved forest and on the Javadis in *South Vellore* and Chittlingi and Karungal reserves in *East Salem* division and particularly in special tending areas in the two divisions.

Wild animals.—*South Salem* reports that leopards were busy last year in the Class II and Class V forests in Perambalur range and that free licences were issued to two shikaris to shoot them but nothing was shot.

CHAPTER III.—SYLVICULTURE.

SECTION I.—FORMATION AND REGENERATION OF FORESTS.

(i) *General Progress of Areas under Regeneration.*

19. There are no areas under any special system for regenerating any particular species.

(ii) *Establishment of Reproduction under Working Plans or Schemes (with Form 18-A).*

20. (*a*) *Mainly natural.*—Natural regeneration is alleged to have been generally good in all districts except *North* and *Central Salem*, where the regeneration was poor on account of failure of rain, which failure was common to all districts in the Circle. In *South Vellore* the special tending areas are annually sown with Sandal seeds to assist the natural regeneration of Sandal, and this operation is carried out more intensively in those localities where there are no Sandal trees. In *West Vellore* and *East Salem* Sandal seed germinates readily, but few survive on account of drought and damage caused by wild animals and by the Malayali cattle; on the Yelagiris in *West Vellore* it promises better. Other species doing well in *West Vellore* are *Chloroxylon swietenia, Albizzia amara, Pterocarpus marsupium* and *Tectona grandis*. In *Central Salem* plots to the extent of 309 acres in the Manjavadi, Papireddipatti and Kurichi Felling Series containing seedlings of natural regeneration of Sandal were maintained. In *South Salem* the seedlings in the Sandalwood areas of Perambalur and Thammampatti ranges, which are completely free from spike, are thriving well, and the regeneration of bamboos is fairly satisfactory.

(*b*) *Mainly artificial.*—Prolonged drought caused a thorough failure of all efforts at artificial reproduction.

(*c*) *Afforestation.*—None during the year under report.

(iii) *Plantations and other Forms of Regenerations not under Working Plans or Schemes (with Form 18-B).*

21. *South Vellore—Amerdi Plantation.*—The old history of this plantation is practically unknown. It is probable that the jungle conservancy department made a beginning to plant up with exotics the banks near the Amerdi river. In 1912, when planting was started again, all that remained of the old plantation were a block of *Pithecolobium saman* and a patch of about twenty well-grown Red Sanders trees. The area was overrun with prickly-pear and

thorny undergrowth. Teak, *Sissoo*, *Soymida febrifuga*, *Dalbergia latifolia*, Red Sanders, *Hardwickia* and Mahogany were put down, but results were, and have continued to be, patchy. Up to 1920-21 a total area of 85.25 acres had been dealt with and the planting up of fresh areas was abandoned. In 1921-22, however, a small plot in the *Pithecolobium* block was cleared and pitted for an experiment with *Gmelina arborea;* this started very well, but has been practically destroyed by gaur which no fencing seemed to keep out. Thereafter, work has been confined to replacing casualties in the several compartments.

The following is a statement showing the areas attempted to be planted since 1912 and expenditure incurred :—

	Area attempted to be planted.	Actually planted.	Expenditure.
	ACS	ACS.	RS. A. P.
1912-13	7·30	7·30	298 8 8
1913-14	8·05	8·05	774 8 11
1914-15	8·90	8·21	722 0 4
1916-17	5·00	4·66	306 11 6
1917-18	5·00	1·45	151 1 1
1918-19	10·00	5·66	536 7 10
1919-20	21·00	15·72	491 3 7
1920-21	20 00	10·00	878 10 11
1921-22	2·00	0·50	421 11 6
1922-23	..	..	118 11 9
Total ..	87·25	61·57	5,099 12 1

In 1923-24 Red Sanders and *Sissoo* seedlings were put out in blanks by the subordinates without any cost as it was ordered in Chief Conservator's No. 565-Press, dated 12th November 1923, that no money should be spent. It is, of course, obvious that this work was done far too late.

Muttakadu Experimental Plantation, Gingee range.—In 1921 an experimental plantation was started in the plains portion of Muttakadu reserve to see how to improve the plains forests and an area of five acres was selected, demarcated and clear felled, and the existing growth sold to a contractor, and the rubbish was burned. The contractor fenced the area before handing it over. The area was then divided into ten plots, and sowing and planting of the following species were carried out in 1922-23 :—

Pterocarpus marsupium, Gmelina arborea, Albizzia lebbek, Acacia ferruginea, Hardwickia binata.—In 1923-24 no sowing or

planting was undertaken except that some *Pterocarpus marsupium* and *Azadirachta indica* seeds were sown in blanks in plot I and the experiment of sowing *Hardwickia binata* seed thickly after ploughing was continued in another plot. These last sowings were entirely unsuccessful owing to the failure of rains. The plots are of uneven size and the work done has been haphazard.

The following shows the results of the plantings and sowings :—

Species.	Surviving at the end of March 1923.	Surviving at the end of June 1924.	Remarks.
Pterocarpus Marsupium	148	73	Planted with unbroken pots.
Do.	293	91	Do. in pits.
Do.	98	89	Dibbled in pits.
Gmelina arborea	219	218	Planted in pits These plants are from 3 to 15 feet high but very branchy and badly grown.
Albizzia Lebbek.	21	21	Sown in pits.
Acacia ferruginea . ..	238	230	Do.
Hardwickia binata ..	932	932	Sown in ploughed area. Growing very well.

In Kurumbapatti plantation in *Central Salem*, weeding and fencing alone were carried out at a cost of Rs. 34. The experimental stump planting of *Gmelina arborea* ordered by the Chief Conservator was a failure for want of rains. In other divisions there are no regular and Taungya plantations.

(iv) *Tending.*

22. General tending was done in all the Sandalwood coupes, except in Denkanikota Range Sandal Felling Series where the staff was fully occupied in extracting "spiked" Sandal trees to try and stop the spread of this disease; climbers and creepers were cut and the Sandalwood trees freed from overhead shade. In *South* and *West Vellore* special tending was undertaken in areas in which young Sandal is promising, and these are tended and watched until the young Sandal growth in them is out of all reach of cattle and of danger from suppression. The special tended areas have been well fenced. Two acres in the special tending area (Coupe II of Verrappanur Sandal Series) in *South Vellore* were opened out as per instructions of the Acting Conservator in his Inspection Notes to see that a greater removal of cover would help the natural regeneration of Sandal and stimulate the growth of young seedlings already existing in the area. The results are being watched. In *East Salem*

special tending was done in Coupes I and II of the Kalroyans Sandal Series over an area of twenty acres in Thumbal extension and Mannur reserved forests and in the sample plots in Tholthukki and Thekkalpatti. In *South Salem* a scheme has been sanctioned during the year under report by the Conservator for taking up regular tending operation in the Sandalwood areas for the whole of Panchamalais with effect from 1924-25 and a similar scheme for Kollimalais was sanctioned after the close of the year.

(v) *General.*

23. The season was so exceptionally dry that I am unable to believe that any reasonable proportion of the seedlings survived. In the course of tours since November I have only found four tanks in the Circle with water in them prior to the rains in May 1924; and all the rivers were dry too. The result of this state of things has been a large increase in the number of dead and stag-headed trees —in the case of Sandal, seen recently in *North Salem*, the "crowns" are reduced in many cases to a few epicomic branches on the stems. Subject to these remarks the rest of this chapter is based on the local reports (*quantum valeant*).

A copy of this office R.O.C. No. 2451-21, dated 4th December 1921, issuing instructions with regard to the work to be done in Sandalwood areas, is enclosed. In this it was ordered that the number of Sandalwood plots should be limited; five plots in *West Vellore* and four plots in *East Salem* are being maintained.

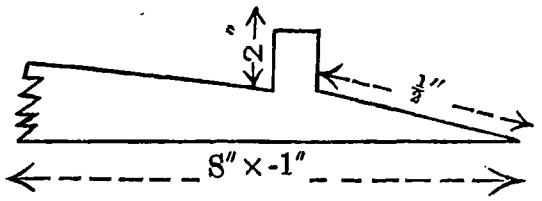
SECTION II.—TENDING OF THE GROWING STOCK.

24. The only other work done has been timber improvements fellings on a small scale in three places in *West Vellore* in 1922-23. The operations consisted of cutting ilnes all round the areas to a width of twelve feet, weeding and tending young and suppressed seedlings, cutting crooked and deformed Teak trees, sowing seeds of Teak and Vengai over the area, and fencing round the mother trees, and scratching the soil. These works were done solely to facilitate the growth of the superior species. The results of these operations are said to have been satisfactory (no figures have been furnished in support of this statement). In 1923-24 the operations were not undertaken in new coupes pending the sanction of new working plan sent to the Chief Conservator. In *East Salem* the selection and marking of trees was done in Coupes V and VI of Kudimaduvu reserved forest solely to facilitate the growth of superior species, but no fellings were done.

Copy of Reference No. 2451-21, dated 4th December 1921, from the Conservator of Forests, Fourth Circle, to the District Forest Officers in Fourth Circle.

Please read the prescriptions in the Sandal Working Plan relating to your district as regards the work to be done. It seems to me that at present a good deal of money is being wasted and unnecessary work put on to the local population which is limited in numbers and is also interested in cultivation.

2. Dibbling of seed is intended to be exceptional and should be confined to small patches which are devoid of Sandal though situated in areas where Sandal is growing well. The seed can be put out in the hot weather when the Malayalies have no other work to do, and should be put about quarter of an inch into the soil. The simplest way of doing this is to cut a stick about one-third inch in diameter, about half an inch below a branch cut off the small branch two inches from its junction, and sharpen the main part of the tool which will then be roughly this shape



To use: poke tool into the ground; put in one seed; then put stick in about three-quarter of an inch away on all four sides, thus :—:•: the centre being the one with the seed, in order to cover up the seed.

3. Care must be taken that too much tending is not done. Creepers are to be cut, but other trees should only be cut to such an extent as is necessary to give overhead light until the Sandal has reached the level of the rest of the forest, when the branches of the surrounding trees may be cut to allow room for expansion of the crown.

If too much is cut the Sandal tends to bend over; in other cases the plant has no host or very poor ones, or, as has occurred near

Suriyakadai on the Chitteris, *Stenosiphonium* (a sort of *Strobilanthes*) or some other weed may be let in to such an extent that the forest cannot regenerate itself.

4. The number of sample plots in each district should be limited in view of the fact that the District Forest Officer has to measure them up in as many cases as is possible, and this he should do at least once in three years. Probably one in each felling series would be sufficient to give us average measurements which is all that we need.

5. Trenching to get root-suckers need not be done in future until we see whether the work done at Komattiyeri gives useful results in the way of producing plants which will grow to a reasonable size and will produce heartwood, and then only when it is necessary to supplement the natural seedlings which normally one would expect to find as a result of the seedling of the trees whose roots are cut to give root-suckers.

6. The fencing of mother trees is to be stopped as, so far practically, no results have been seen which justify the labour involved.

7. As regards "specially selected" areas, the difference between them and other areas consists in the fact that they are to be fire protected, cattle kept out (i.e., fenced) and some dibbling of seed is to be done. In addition to fire protection and fencing these specially selected areas must be "tended" until the young crop of Sandal is out of all danger of destruction, and this is expected to take about six years. Larger areas should not be taken up than can be looked after. (Please see lines 6 and 7, third clause of paragraph 37, page 29 of Mr. Wilson's Working Plan, for the Javadi and Yelagiri Hills.) The rest of the forest is only "tended" once in six years, i.e., in the summer of the year after felling. (Please see first clause of paragraph 37.) This is for the purpose of assisting the older crop and even big saplings, cutting creepers which do a lot of damage, and so on. In addition to this "regeneration", in the "specially protected areas", creepers are to be cut, seed dibbled in where necessary, tops of seedlings freed more thoroughly than in the rest of the coupe, and this work must be supervised. This is the chief object with which Mr. Wilson put in the prescription regarding "specially selected areas" knowing how difficult it is to get supervision over all the areas.

CHAPTER IV.—EXPLOITATION.

(*a*) *System of Management.*

25. The total area under working plan during the year was 1,699 square miles and the various sylvicultural systems in force are detailed below :—

	Area in square miles.	Percentage to the total area under working plan.
Clear fellings	8	0·47
Simple coppice	522	30·72
Coppice with standards	355	20·90
Selection fellings	227	13·36
Improvement fellings	375	22·07
Pastoral methods	198	11·65
Forests for which working plans have been prepared but are not subject to any definite system of working ...	14	0·83
Total ...	1,699	100·00

(*b*) *Exploitation by Departmental Agency.*

26. Sandalwood was the chief item extracted departmentally 308 tons being sold as against 269 in the previous year, the average rate being Rs. 1,069 against Rs. 1,201 in the previous year and against Rs. 1,174 in the year previous to the last. The fall in price during the year is so far as can be ascertained due in part to exchange being high at the time of the sale, in part to much of the Tirupattur wood being from green spiked trees with the result that dryage is higher and also perhaps to the fact that the quantity sold in this Presidency rose from 491 tons to 718½ tons.

Timber.—Three hundred and eighty-six cubic feet of timber were extracted from the reserves and unreserves of *North Salem* and supplied to the Hosur Remount depot. In other districts, a little timber was extracted for building purposes.

Fuel.—Small quantities of dead fuel were collected for sale to the pilgrims who attended the Audi festival at Hoganikal and 214 cubic feet of charcoal were manufactured experimentally by the students of the Vernacular Training School in *North Salem*. Two tons 29 quarters of dead *Frenella* wood was extracted from the Sanniyasimalai Plantation on the Shevaroys in *Central Salem* and

supplied to Salem Jail. There is still some of this fuel in stock but there is no demand for it as it burns rapidly and gives little heat. In other districts, small collections were made whilst celaring lines.

Bamboos.—A few were extracted for departmental use.

Minor Forest Produce.—Eight hundred and forty-seven maunds of tamarind produce and 300 measures of myrabolams were collected in *South Salem* as the bids for Minor Produce were unsatisfactory.

(*c*) *Exploitation by purchasers.*

27. Except in cases referred to in the above paragraphs, fuel and bamboos were, as usual, extracted by contractors who purchased coupes standing. The collection of Minor Forest Produce was also leased out to contractors.

The total outturn from all classes of forests by all agencies is compared with similar details of last year in the following statement:—

Year.	Timber in thousands of cubic feet.	Fuel in thousands of cubic feet.	Bamboos.	Gross value of minor forest produce including grass and grazing.
			Rs.	Rs.
1922-23	701	1,040	1,25,819	3,70,907
1923-24	634	1,176	99,794	3,08,284

Timber is a fluctuating item which varies with the extent of land given on patta and the value of the growth on the land. *Fuel*—Though the outturn is greater than last year, there is decrease in revenue due to poor competition in coupe sales and to a reduction in the value of trees on darkhast lands realized by the Revenue department. *Bamboos*—The decrease is due to the collection of 4 kists in 1923-24, the second year of a 3 years' lease, as against 5 kists in 1922-23, i.e., first year of 3 years' lease in *South Vellore*, want of demand for some coupes and dull competition in others in *West Vellore*, and in *East* and *Central Salem* to the flowering and death of bamboos and increase in railway freight. It is also probably due to the bad agricultural season which reduced the purchasing power of the public and therefore the quantity of bamboos extracted. *Grazing*—The decrease is due to the introduction of forest village system in Gingee range in *South Vellore*, fewer foreign cattle in Chengam range in *West Vellore* and generally to the failure of rain and consequent scarcity of fodder throughout the North Arcot, Salem and Trichinopoly revenue districts. *Minor Forest Produce*—The decrease is due to the failure of monsoon, dullness of market and consequent low bids in *South* and *West Vellore* and *East Salem* divisions and to the fall in prices of Avaram

bark and decrease in the sale of green leaf for manure in *South Salem* as there was no demand on account of scarcity of water for wet cultivation.

Seven coupes in Tiruvannamalai Range were sold by tender to the Co-operative Society during the year at the rates fetched for the coupes last year. Tenders were accepted because the old contractors who are averse from outside competition would have raised the bids so high as to make it impossible for the Society to purchase in open competition. This is in accordance with the policy laid down in paragraph 6 of G.O. No. 1478, Development, dated 4th November 1922.

Grazing.—Of the total area of reserved forests and reserved lands, 92.41 per cent was opened to grazing against 88.96 per cent in the previous year. The incidence of grazing in the several districts of the Circle is given below :—

Divisions.	Acres.	Cow units.	Number of acres per cow unit.
South Vellore	290,550	73,866	3·93
West Vellore	236,160	56,847	4·15
East Salem	315,520	77,448	4·07
North Salem	305,280	58,491	5·22
Central Salem	246,400	68,884	3·57
South Salem	234,880	85,603	2·74
Total ..	1,628,800	421,139	3·87

The number of cattle grazed during the year shows an increase of 7,175 cow units and the area open to grazing an increase of 60,800 acres. The number of cattle permitted to graze on payment was 451,771 against 376,089 and the revenue from grazing was Rs. 1,96,015 against Rs. 2,04,090 in the previous year. The increase in the number of cow units is mainly due to the inclusion of the "calculated" number of cattle grazed in panchayat areas and in forests leased out to grazing being taken into account during the year under report. The increase in the areas open to grazing is due to throwing open to grazing, on account of the dry year and consequent scarcity of fodder and water in unreserves during the year, of areas normally closed to grazing for sylvicultural reasons.

Minor produce.—A total sum of Rs. 4,773 has been written off, being the irrecoverable arrears of revenue due in *West Vellore*, *Central Salem* and *North Salem* from a Nux-vomica contractor, by Government and the Chief Conservator.

(*d*) *Exploitation by right and privilege holders.*

28. The rights granted to the villagers at the Settlement in V. Kanapadi and Palamalai Extension reserved forests were partially exercised during the year and free permits for 389 cow units were issued. Similar concessions granted to the villagers in respect of Gundur and Ariyurshola reserved forests were not permitted to be exercised during the year owing to some misapprehension by the Range Officer and the subordinates. The grazing of cattle of the Malayalis on the Javadis on a deposit of 3 annas per cow and the distribution of rewards to hill tribes for the successful protection of reserves continued to work satisfactorily during the year. It is reported that the privilege of allowing Malayalis to carry knives into the reserves to cut creepers was abused by them and they cut bamboos to feed their cattle on the leaves and some petty fines were imposed. The system of grazing either free or on payment of half the grazing fees under the forest village system in force in Tiruvannamalai and Gingee ranges in *South Vellore* in return for effective protection of the blocks entrusted to the villagers has worked satisfactorily. The Malayalis of Hill villages of Tiruppattur, Chengam and Alangayam in *West Vellore* and 31 villages on the Chitteris in *East Salem* working under the hill village system were allowed as usual the concession of free removal of timber and other forest produce for domestic and agricultural purposes in return for protection.

(*e*) *Exploitation by free grantees.*

29. The quantity and value of produce removed under the head is given below. The free grants were made chiefly from unreserves and in a few cases from reserves for rebuilding houses destroyed by fire. The usual grant of 10 tons of firewood for Masimakam and Kanthiri festivals were made from the Pichavaram reserve in *East Salem* division.

—	Timber in thousands of cubic feet.	Value.	Fuel.		Bamboo value.	Grazing.	Other minor forest produce.	Total.
			In thousands of cubic feet.	Value.				
		Rs.		Rs.	Rs.	Rs.	Rs.	Rs.
Right-holders ..	..	..	..	..	..	73	..	73
Free grantees ..	36	4,075	1	50	63	..	108	4,296
Total ..	36	4,075	1	50	63	73	108	4,369

CHAPTER V.—FINANCIAL RESULTS.

30. The following statement shows the financial position of the year under report compared with that of the previous year and the average of the preceding quinquennium :—

—	1923-24.	1922-23.	Average of the preceding quinquennium.
	Rs.	Rs.	Rs.
Revenue	* 10,42,706	10,84,751	10,44,364
Refunds	17,769	25,779	17,731
Net ..	10,24,937	10,58,972	10,26,633
Expenditure.			
B. Conservancy and Works	1,13,216	1,59,939	1,81,490
C. Establishment	4,22,565	4,18,196	3,51,094
Total expenditure ..	5,35,781	5,78,135	5,32,584
Surplus ..	4,89,156	4,80,837	4,94,049

* Excludes Rs. 2,150 relating to other Circles as explained at the foot-note of Form No. 80.

The surplus was maintained in spite of a decrease in the revenue to the extent of Rs. 42,045 chiefly under heads II and V because of the increase under I (*d*) owing to the larger output of sandalwood from spiked trees from *North* and *South Salem* divisions and to a decrease in the expenditure under B. Conservancy and Work to an extent of Rs. 46,723 which was due to the reduction in expenditure by the Forest Engineer in this Circle from Rs. 57,929 to Rs. 2,608 owing to the stoppage of further work on the Javadi road system.

There was a slight increase of expenditure by Rs. 4,369 under C. Establishment as compared with that of last year.

The various contributions to the gross receipt of Rs. 10,42,706 are as detailed under :—

Major produce	47·27 per cent.	(This includes 33·87 per cent from Sandalwood.)
Grazing	18 80 per cent.	
Bamboos	9·16 ,,	
Minor Forest produce ...	12·99 ,,	
Miscellaneous items ...	11·78 ,,	
Total ...	100·00	

Under B. Conservancy Works :—

56·63 per cent was spent on exploitation.
41·61 ,, ,, on upkeep and improvement of forests, and
1·76 ,, ,, on other miscellaneous items.

It will be noticed that the cost of establishment is steadily rising and the cost of works decreasing, the former is due, I think, to the time increment scales and the latter to the financial difficulties in some other Circles.

31. The important variations are explained below.

Receipts.

(*i*) *By Departmental Agency.*

Sandalwood.—Plus Rs. 33,408. The increase was due to the extraction and sale of a larger quantity of sandalwood chiefly from *North* and *South Salem* divisions due to the prevalence of spikes in spite of a drop in average sale prices from Rs. 1,201 to Rs. 1,069 per ton.

Minor produce.—Minus 2,884. The decrease was due to the non-collection of Nux-vomica seeds during the year as the net revenue realized was so small.

(*ii*) *By Purchasers.*

Timber	— 6,758	The variations have been explained in paragraph 25 above.
Fuel	— 9,676	
Bamboos	— 28,955	
Grazing	— 8,002	
Minor Forest produce ...	— 13,203	
Miscellaneous V (*a*) ...	— 9,165	The decrease is due to reporting fever offences during the year (paragraph 12 above).

Expenditure.

B. Conservancy and Works.

The chief variation was under head VII (Minus 48,399) and has been already explained in paragraph 28 above. The other variations are :—

I (*d*) ...	+ 10,591	The increase was necessary to get the corresponding increase under revenue under this head.
II	+ 11,719	The increase was due to the transfer of the pay of reserve watchers to this head from VIII (*g*).
VI	— 3,736	The decrease was due to the non-purchase of tents.
VIII (*g*) Other works.	— 19,536	The decrease was due to the transfer of reserve watcher's pay to B II.

C. Establishment.

C 1 to III ...	+	9,140	The increase was due to the payment of leave allowances of two Extra Assistant Conservators of other circles in South Vellore division while on leave in that division and to the actual establishment employed during the year.
C IV ...	—	6,673	The decrease was due to the restricted touring and to the introduction of the Madras Travelling Allowance Rules.
C V ...	+	1,902	The increase was due to the adjustment of the cost of mapping by the Survey of India.

CHAPTER VI.—RESEARCH AND EXPERIMENT.

32. *Sandal.*—We have regretfully little progress to report in our investigations. There has been a change in the officer in charge since the end of the year and Supernumerary Ranger, S. Ranga-swami Ayyangar, is now making notes. Our men are not skilled scientists.

In the *North Salem* observation areas, our figures now are:—

Locality.	Enumerated	Spiked.	Healthy.
Mahadeswarangudi area ...	352	326	26
Jowlagiri cairn 53 area	513	395	21
Jowlagiri bungalow area ...	451	444	Nil.

After having kept 1,165 trees till they died, we are now taking out spiked trees as soon as they are affected with a view to reduce the risks of infection. It may be noted—

(*a*) that not a single one of these spiked trees which were under special observation and all numbered recovered;

(*b*) that every tree enumerated in "Jowlagiri bungalow" has now died and that apparently all the others are on their way there.

There has been a terrible spread of the disease in the Jowlagiri reserve (area 7,763 acres), the number of spiked trees found (up to 1st August 1924) is 130,695, and the value of the loss of increment which we might reasonably have expected works out to Rs. 60,73,783 in this reserve alone. The sandal area in this circle runs to many square miles. We ought to have a specialist to investigate the disease. Dehra Run seems to have found out now that further field investigations are necessary. The disease continues unabated and we have taken out about 310 tons of heartwood in *North Salem* as against a normal production of about 19 tons according to the working-plan and I see no likelihood of a decrease for a year or two —we are working in 14 localities in this division. The immediate revenue is no doubt grateful and happens also to be forestry.

In *South Salem*, no new localities have been reported—the number of spiked trees taken out, has been 7,629 of which 6,447 contained no heartwood. In Karuppankaduthittu, 90 per cent of the sandal are attacked. In the Nellivasal area in *West Vellore* there has been a further attack of 9 trees. These continue in the same direction. The map shows a definite line south-south-west and another north-north-east of the area originally attacked in 1917. It looks as if the spread to the south-south-west had ceased.

Obligatory parasitism.—The observations in *West* and *South Vellore* divisions continued. In both cases in deepening trenches roots were found entering the earth, the trees were growing in. In *West Vellore*, four out of the five trees seem to have lost vigour as compared with the neighbouring unisolated trees.

Rate of growth.—Recent inspection shows that the numbering of the trees in at least two of the sample plots has not been kept up and the trees being unidentifiable, work will have to be started *de novo*.

Bamboos.—The sample areas in *South Vellore* are being measured still, but a scrutiny of the figures shows that many of the data collected are valueless because the same system of recording figures has not been kept up and work done at prescribed intervals.

Yield of manure leaf.—It is reported that only 72 head-loads were taken out "as there was no further demand", the fact that we wanted to ascertain the normal yield of a moderately poor dry scrub forest was lost sight of!

Daincha (Sesbania).—Owing to the dry year, the sowings were an almost complete failure and the experiment will be discontinued as the Agricultural Department can get their seed from Bengal and elsewhere far more cheaply than we can supply it.

CHAPTER VII.—ADMINISTRATION.

33. Mr. A. Wimbush was in charge of the circle up to 26th October 1923 and Mr. H. A. Latham for the rest of the period.

34. *Tours.*—None of the District Forest officers spent the prescribed number of days in camp due to various reasons such as illness and change in the personnel of the District Forest Officer, etc.

35. *Inspection.—By the Conservator—Office.*—All offices were inspected.

Forests.—Mr. Wimbush inspected the forests of *South Vellore* (Jawadis), *West Vellore*, *East* and *Central Salem*. Mr. Latham inspected *South Vellore* (Gingee) and *South Salem* (Kollimalais and Pachamalais).

By the District Forest officers.—All range offices, except two (Santhavasal and Anchetti), were inspected during the year.

Sandalwood depot.—Only the depot at *Vellore* was inspected during the year, and the other at Tiruppattur was inspected after the close of the year.

36. *List of offices audited.*—All the District Forest offices were audited and the result was generally satisfactory.

37. *Vernacular Training School.*—The session for 1924 was as usual held in the *North Salem* division from 1st February 1924 with thirty students on the roll. One was sent down for insubordination and another resigned and the work seems thereafter to have gone on satisfactorily.

During the 1923 session, eleven out of thirty students got first-class certificates. The class, on the whole, was better than the last session.

38. *Health of the establishment, including an account of the measures to improve sanitation and casualties.*—There were the usual attacks of malaria which is common in all the sandal areas.

Casualities.—Three Foresters, one Forest Guard and one Watcher died of malaria during the year.

CHAPTER VIII.—GENERAL.

(1) Formation of and Management by Panchayats (to include Forest Village System).

(a) Formation and Management of Panchayats.

39. *Formation.*—Panchayats under Class V are dealt with by the Forest Panchayat Officer.

Forest Village System.—This system of managing Class II reserves under the control of the Forest Department in the Tiruvannamalai Range continued to work very satisfactorily and the good protection everywhere is very creditable to the panchayatdars. In his Proceedings No. 546, Mis., dated 24th October 1923, the Chief Conservator sanctioned the introduction of the system in all the Class II Forests of Gingee Range in South Arcot. The orders were given effect to in November 1923. Under this system, the reserves in the range were divided into 31 blocks and entrusted to Panchayats, some of the areas were so small that they could not be economically managed. The concessions and privileges granted were as for Tiruvannamalai Range except that the refund which could be earned for satisfactory protection and co-operation with the department was fixed at 50 per cent of the grazing fees on the

number of necessary cattle admitted to graze in the block against the 100 per cent refund on necessary cattle in the Tiruvannamalai Range. In each case, the refund was worth 8 annas per cow unit. In the Tiruvannamalai Range, the scheme for 14 Malayali villages situated at the foot of the Kalroyans was revised and a 50 per cent return of grazing fees on all their cattle allowed in return for protection. The numbers of necessary cattle here were formerly too small to repay the people for the work they had to do.

Working of the Panchayats in the Tiruvannamalai Range.—Regular monthly panchayat and periodical general body meetings were held in most of the forest village blocks according to the by-laws framed for the purpose; in some cases, the Range officer had to convene these meetings owing to the illiteracy of the panchayatdars and record the minutes thereof. One important feature of the year is that all panchayats have been trained to maintain regular accounts showing receipts and charges and a Forester has been placed on special duty to see that the accounts are properly kept and passed at the meetings of the forest villagers and also generally to assist the Range officer to supervise the working of the system. With the approval of the Chief Conservator, the establishment in some of the best worked panchayat blocks was reduced in respect of the Kavuthimalai, Kannamadai, Ladapuram, Ponnaiyar and Poolanjimalai reserves, and four Forest Guards and three watchers looking after areas making up eleven village blocks were dispensed with. In two of the blocks, the subordinates were completely removed and the panchayatdars worked directly under the supervision of the Range officer and the Section Forester. In the remaining nine blocks, the subordinates of the adjoining beats were directed to assist the panchayatdars. The permanent withdrawal of the establishment mentioned above has since been sanctioned. The panchayatdars engaged their own watchers wherever the funds permit and these men have to assist the subordinates. The panchayatdars also frequently visit their blocks and help the establishment.

Working of the system in Gingee Range.—The system has only been in force for five months and it is too soon to form a definite opinion of the working, though it appears to be going on satisfactorily.

Concessions.—Permission to remove dead-fuel for domestic consumption given to women and children was not largely availed of as the panchayatdars did not encourage it for fear of encouraging habitual fuel thieves to enter the forests and endanger the protection. In Gingee Range, one of the blocks was found to have been raided for green fuel and the concession has been temporarily suspended and

the President changed. Where, however, the concession was availed of, the panchayatdars issued permits of their own to regulate the removal and levied a small fee which was credited to the panchayat funds. Permission to remove manure leaves was availed of only in eight of the blocks of Tiruvannamalai Range the reason alleged being the seniorage rate of Rs. 2 per cart-load is prohibitive, the probable reason being that owing to the failure of the monsoon during the year under report wet cultivation was much restricted and consequently the demand for manure leaves could be met from the trees on patta and unreserved lands. Though paper provision was made for the working of small coupes in panchayat areas for agricultural implements and small timbers for the benefit of the forest villagers in areas not under regular fuel working, no coupes were opened partly because the proposals were initiated too late and partly because the papers were wrongly dealt with in the District office. Such coupes are now being opened.

Works of Improvement.—Some of the solvent panchayats have taken up the improvement of water facilities in their grazing blocks. For instance, the panchayatdars of Agaram repaired a tank in their block at a cost of Rs. 50 and those of Rathapuram another tank in their block. Some panchayats also contributed money towards the building of the schools in their villages and providing slates, etc., to poor children. Endeavours were made in the Tiruvannamalai Range during the year to revive the celebration of "arbor days" as part of the forest village system. The panchayatdars of a few blocks got all their ryots together on certain days and took them out to their blocks where seeds of *Pongamia glabra*, *Acacia sundra*, Red Sanders, etc., were sown by them. Owing to the unfavourable season, the operations completely failed except in one block where *Pongamia glabra* seeds were sown along the banks of the stream. The germination here was remarkably good and the seedlings are now from six inches to a foot high and have pulled through the hot weather successfully. The seed ought to be put out in May or June.

Darbar day.—The fifth annual darbars for the Tiruvannamalai panchayats were held at Tiruvannamalai and Thanipadi in February 1924. The more important darbar at Tiruvannamalai was very largely attended by the surrounding village panchayatdars and forest villagers, several officials and citizens of the taluk the Zamindar of Vettavalam and M.R.Ry. Authinarayana Chettiyar Avargal, M.L.C., of Salem being also present. M.R.Ry. Vijiaraghava Mudaliyar Avargal, M.L.C., and President of the District Board of North Arcot, kindly presided and distributed refunds of grazing fees for 1922. The function was a success and went a great way to demonstrate to the lay mind the advantage of the

protection of forest and excellent system of co-operation amongst the ryot population and of the forest village system by which good protection of reserved forests was being achieved. Several requests in the form of resolutions were put forward at the darbar by the panchayats and these are being dealt with.

West Wellore—Forest Village System.—Proposals have been submitted for the formation of the Class II panchayats in Chengam and Krishnagiri Ranges.

East Salem.—The panchayat formed under the forest village system for Godumalai reserved forest had to be dissolved owing to its bad management; some of the members owned goats. The Kuthakudi panchayat referred to in the last administration report was reorganized by the special staff. At the close of the year the writer toured round the Kallakurichi and Atur Ranges and explained to the ryots the system proposed for introduction and Ranger K. R. Subramaniam who was put on special duty, has since formed more than a dozen panchayats. Proposals are being submitted to the Chief Conservator for sanction. Panchayats for the remaining forests of Kallakurichi Range are being formed. In the Harur Range, panchayatdars have since been formed for all the reserves. Ryots have been begun to take an interest in these panchayats and before long it is hoped that all the forests will be managed by panchayats working under the Rangers.

South Salem.—The village panchayats of Gangavalli Class II forests continued with the same members as in previous year and worked fairly well. The protection was satisfactory. The Sobanapuram village panchayat in Musiri Range was sanctioned in Chief Conservator's No. 1956-24, dated 20th March 1924.

(2) Measures for improving Local supplies and facilities for obtaining forest produce—including water-supply, fuel, manure leaves, etc.

(*a*) *Improvement of water-supply in State forests.*

(*i*) Boring operations.

Nil.

(*ii*) Improvement of water-supply in grazing grounds.

40. In accordance with Chief Conservator's No. 177, Mis., dated 7th May 1923, steps have been taken to show sufficient progress in this direction annually. The best way to ensure this would be to allot some percentage of the grazing fees annually. During the year Rs. 374 has been spent in repairing three tanks in *East*

Salem, Rs. 250 in *North Salem* for repairing five tanks, and Rs. 40 in *Central Salem* on a tank.

(*b*) *The supply of forest produce to meet the wants of the people.*

41. This was attended to by the coupe contractors. Co-operative societies in Tiruvannamalai continued to work coupes during the year and the working is reported to be methodical and satisfactory. During the year, on account of scarcity of fodder in *Salem* district, concessions were granted to ryots for grazing in closed coupes, free cutting and removal of fodder grass and grazing permits were made valid for the whole range instead of a particular block, for which permit was issued.

(*c*) *Supply of manure leaves.*

42. The growing of *Sesbania aculeata* (Daincha seed) in *East* and *Central Salem* failed for want of rain. In *South Vellore*, the concession of removal of manure leaves at Rs. 2 per cart-load for non-woody shrubs was availed by eight panchayats in Tiruvannamalai range. In *South Salem*, the manure leaf coupes opened in the Pachamalais of Musiri and Perambalur ranges and in the Namakkal-Kollimalais were sold to contractors and the revenue realized was Rs. 9,642 against Rs. 7,925 last year. The contractors sustained heavy losses during the year as the demand for manure leaves was very poor in the absence of timely rain. Out of 19 manure leaf coupes thrown open in Class V Panchayat Forest only 7 panchayats availed of the concession. The general result of the working is stated to be fair.

(3) Timber and Sandalwood Transit Rules.

43. There are no timber transit rules in this Circle.

Sandalwood Transit Rules.—The question of revision of the sandalwood transit rules in *Chittoor* and *North Arcot* districts was ordered to lie over until September 1924 in Chief Conservator's No. 678, Routine, dated 10th September 1923.

Revised rules for the *Salem* and *Trichinopoly districts* have been prepared and are under correspondence with local officers as there appears to have been a lot of theft.

(4) Jungle Tribes.

44. The Malayali hill village system is in force in the *Chitteris* in *East Salem* and in the Javadis of *South* and *West Vellore* divisions. The system is reported to have been worked satisfactorily. In the Tirupattur-Javadis, 11 villages are still unwilling to join. As they pay a deposit under this system and can get their grazing fee, their attitude is not intelligible. The Co-operative Stores opened

for the benefit of the Malayalis at Komattiyeri continued to work satisfactorily. The Malayali schools opened at Komattiyeri and Veerappanur are reported to be working satisfactorily. A substantial building was constructed for the school at Komattiyeri by the Taluk Board to which a sum of Rs. 100 was contributed by this department. The Co-operative Department and the Taluk Board have been helped to make these institutions a success.

(5) Mining and Quarrying.

45. A prospecting licence for quarrying emery over an area of 140 acres in Sanniyasimalai reserved forest was granted by the Collector to Mr. Dickens for one year from 6th December 1923 and an area of about $6\frac{1}{2}$ cents is reported to have been quarried during the year.

(6) Civil Suits.

46. A second appeal regarding the ownership of Arana and Thirthagiri blocks, *East Salem* division, referred to in the last report is still pending in the High Court.

In *North Salem*, a suit filed by a coupe contractor was dismissed with costs.

(7) Control of unreserved lands by the Forest Department.

47. The land revenue administration of the Javadi Hill villages of Tirupattur taluk, North Arcot district, continued to be under the District Forest Officer, West Vellore. The system has been ordered to be continued for another year in G.O. No. 638, Development, dated 7th May 1923.

A new set of accounts has been prescribed in G.O. Mis. No. 761, Revenue, dated 20th May 1924, after the close of the year.

The unreserves on the Pachamalais and Kollimalais in the *South Salem* division remained under the partial control of the Forest Department.

Salem,
31*st August* 1924.

H. A. LATHAM,
Conservator of Forests, Fourth Circle.

APPENDIX.

SUMMARY OF PROGRESS DURING THE FIVE YEARS 1919-20 TO 1923-24.

The chief features of the quinquennium were :—

(1) The introduction of a revised scale of pay of all services.

(2) The introduction of Simplified Leave Rules, Fundamental, and Madras Travelling Allowance Rules.

(3) The appointment of special panchayat staff for the formation of panchayats for the class V forests, the healthy ones in the circle.

(4) The appointment of a Chief Forest Engineer.

2. *Administration and control.*—During the period under review, two additional forest circles were formed with headquarters at Bellary and Ootacamund. Consequently this circle was reduced by three district charges. A rearrangement of all the divisional charges in this circle was made with effect from 1st July 1920.

Instructions were issued in Chief Conservator's Reference No. 2779/20-2, dated 6th September 1920, for the future preparation of administration report in a more popular and interesting manner and later on the annual report was ordered to be prepared for the official year instead of the forest year in Chief Conservator's Proceedings No. 13, Press, dated 30th March 1921.

The following officers were in charge of this circle during the period under review :—

Mr. H. A. Latham	...	1st July 1919 to 5th February 1920.
Mr. B. F. Rigold	...	6th February 1920 to 17th October 1920.
Mr. H. C. Bennet	...	18th October 1920 to 26th October 1920.
Mr. J. S. Scot	...	27th October 1920 to 4th November 1920.
Mr. H. A. Lasham	...	5th November 1920 to 3rd February 1923.
Mr. A. Wimbush	...	4th February 1923 to 26th October 1923.
Mr. H. A. Latham	...	27th October 1923 to 31st March 1924.

On the appointment of a Chief Forest Engineer, the establishment of the Forest Engineer was transferred to his control.

3. *Organization.*—The reorganization of the executive and protective staff was introduced with effect from 1st October 1919.

4. *Changes in area.*—The area under the control of the department fell from 4,309 square miles to 2,754 square miles, as detailed below :—

	At the commencement of the period.	At the close of the period.
	SQ. MILES.	SQ. MILES.
Reserved forests	4,243	2,703
Reserved lands	66	51
Total ...	4,309	2,754

The decrease was chiefly due almost entirely to the transfer of *North Vellore, Madura* and *Tinnevelly* districts to the Third and Fifth Circles, and Tanjore forests to the Collector.

5. *Forest Settlement.*—Fifty and a half square miles were settled during the period.

6. *Demarcation.*—The total length of artificially marked boundaries at the end of the quinquennium was 4,905 miles. During the period under review, 57 miles of boundaries were permanently demarcated.

7. *Forest Surveys.*—During the period, the Madras Survey surveyed the outer boundaries of reserves in *South Vellore, East* and *South Salem* divisions. Departmental survey calls for no remarks.

8. *Working-plans.*—During the period under review, working-plans were completed for 196 square miles. An aggregate area of 423 square miles have been taken up for preparing working-plan. An area of 159 square miles is still to be brought under working-plan.

9. *Communications and buildings (including other works).*—The average annual expenditure during the quinquennium was Rs. 85,620 against Rs. 98,445 of the previous period. The decrease was due to financial stringency.

10. *Forest offences.*—The average annual number of offences reported during the period under review was 8,550 as compared with 12,305 of the previous quinquennium. The decrease is due to the transfer of *North Vellore, Madura* and *Tinnevelly* to the Third and Fifth Circles.

11. *Fire protection.*—The average area under special fire protection amounted to 1,090 square miles, the average failure being 1.29 per cent as compared with 1,301 square miles and 3.9 per cent respectively of the previous quinquennium.

12. *Protection from cattle.*—The whole forest is closed to goats. The average area annually closed to all animals was 300 square miles and that opened to grazing 2,407 square miles.

13. *Yield and outturn.*—The following shows the average annual outturn for the two periods :—

	Timber and fuel in thousands of c.ft.	Bamboos.	Minor produce value.
	C. FT.	Rs.	Rs.
1914-15 to 1918-19	5,502	1,16,779	4,24,721
1919-20 to 1923-24	1,694	1,46,885	1,03,846

There has been decrease under timber and minor forest produce by 67.3 and 75.5 per cent respectively due to the transfer of the three divisions above referred to. The increase under bamboo was by 27.8 per cent due at times, it is thought, to unhealthy competition.

14. *Financial results.*—The average annual financial results for the two periods are—

Year.	Revenue.	Expenditure.	Surplus.
	Rs.	Rs.	Rs.
1914–15 to 1918–19	13,61,539	6,60,056	7,01,483
1919–20 to 1923–24	10,35,462	5,72,484	4,62,978

The decrease in the net revenue is due to the transfer of *North Vellore, Madura* and *Tinnevelly* districts to other circles and largely to increases of salary to the executive and clerical branches. In the districts remaining in the circle, a drop in net revenue occurred in all districts except *South Salem* and aggregated Rs. 2,06,907.

15. *Forest education.*—The results during the quinquennium are shown in the statement below :—

Period of sessions.	Total number trained.	Award of certificates.		
		With honours.	Higher standard.	Lower standard.
Period ending June 1920	5	2	1	2
,, 1921	5	..	4	1
,, 1922	3 *	..	1	..
,, 1923	2	1	1	..
,, 1924	1	1	..	..

* One withdrawn, one died.

The Vernacular Training School for training foresters and forest guards was opened annually as usual. The results are summarised below :—

Period.	Total trained.	Award of certificates.		
		First class.	Second class.	Third class.
February to July 1920	29	6	23	..
,, 1921	29	3	26	..
,, 1922	29	7	22	..
,, 1923	30	11	19	..
,, 1924	28	16	12	..

SALEM,
31*st August* 1924.

H. A. LATHAM,
Conservator of Forests, Fourth Circle.

ANNUAL ADMINISTRATION REPORT OF THE FOREST DEPARTMENT

FOR THE

YEAR ENDING 31ST MARCH 1924

FIFTH CIRCLE.

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

ALTERATION IN AREA.

Reserved forests.—The area at the commencement of the year was 3,360 square miles. In *North Coimbatore* an area of 432 acres omitted to be shown last year has been added on during the year; 2,731 acres were disforested and 68,056 acres excluded as result of the correct computation at the time of the revision of the district reference map. In *South Coimbatore* an area of 5.95 acres comprising the bed of the Amaravati river was disforested in order to allow access to water for cattle from the adjoining patta lands and another area of 771.42 acres of poor scrub jungle, in order to provide lands for ex-sepoys and depressed classes. In *Madura* 203.28 acres omitted in previous years were added on and 9.29 disforested during the year. In *Tinnevelly* 1,292 acres were reserved during the year for the protection of Tuticorin harbour and 222 acres excluded as the claim of the Travancore Government that the bungalow site and all such part of the Agastiyar mountain itself as is above the level of the bungalow site should be included in the Travancore territory having been accepted by the Madras Government. The area at the close of the year was 3,251 square miles.

2. *Reserved lands.*—In *North Coimbatore* an area of 6.90 acres was added on to Jaccanari reserve, but as per notification published, the reservation is to take effect only from 1st July 1924. In *Madura* 228.34 acres were notified as reserved lands during the year. In *Tinnevelly* an area of 1,292 acres was finally settled and transferred to the reserved forest.

2. FOREST SETTLEMENT.

3. An area of 2.008 square miles which was pending settlement in *Tinnevelly* was finally settled during the year. In *North Coimbatore* .001 square mile was taken on hand and completed, but the reservation is to take effect only from 1st July 1924. The settle-

ment of an area of .356 square mile was taken up in *Madura* during the year.

3. Demarcation.

4. Eleven miles of the boundary line of Edayarhalli enclosure in the Edayarhalli reserve in *Kollegal* district and eleven miles of new boundaries of three reserves in Nattam range in *Madura* district were newly demarcated with stone cairns and pillars at a cost of Rs. 410-6-0 and Rs. 320 respectively. In *North Coimbatore* a sum of Rs. 20 was spent in preparing ten cairns towards the demarcation of an enclosure. In *South Coimbatore* Rs. 83-3-0 were spent on clearing $6\frac{1}{4}$ miles of the reserve boundary line in Pollachi range.

5. The reclearing of the old boundaries and repairing fallen cairns were as usual done in all the districts by the forest subordinates free of cost.

6. The total length of the boundaries still to be demarcated at the close of the year was 532 miles.

4. Forest Surveys.

7. (*a*) *By the Survey of India Party.*—There was no fresh survey during the year.

8. (*b*) The surveys of fuel and bamboo coupes, regeneration area, etc., and also other minor surveys were undertaken as usual by the local forest officers.

9. The reference maps are maintained and posted up to date.

CHAPTER II.—MANAGEMENT OF FORESTS.

1. Regulation of Management.

Preparation and control of regular working plans.

10. *Tinnevelly.*—The revised working plan for all the forests in the district drawn up by the District Forest Officer and sent to the Chief Conservator during the previous year was returned for further revision. This was, however, temporarily approved since for a period of three years from 1st April 1924. The prescriptions of the existing working plan were adhered to generally.

The simple working plan for the ten fuel working series in *Kollegal* district returned for revision could not be completed by the District Forest Officer being mostly engaged from September in assisting the police in the big sandal theft case but the plan has been sanctioned provisionally for three years. The schemes sanctioned last year for the extraction of bamboos, agricultural implements and of dead and spiked sandal trees in *Kollegal* referred to in the previous year's report were followed.

In *North Coimbatore* the provisions of the sanctioned working plan and schemes were followed except in the following few cases. In the Jaccanari fuel working circle, owing to want of a road coupe XVIII was worked during the year instead of coupe XVII under proper sanction. The improvement fellings in Jaccanari timber working circles were stopped while in Kallar creeper cutting alone was done by a special arrangement with a contract free of cost, the contractor being given by way of compensation certain dead trees marked by the department. The removal of prickly-pear and lantana provided for in the sanctioned working plans was not done as the operation was a failure and the cost prohibitive. The fuel working circles covered by working plans were not fire protected for want of funds.

In *South Coimbatore* the prescriptions of the Mount Stuart working plan were followed and the quantity of timber felled during the year was 116,015 cubic feet. Coupe XVII of the Punachi timber working circle was felled departmentally and there was an outturn of 17,717 cubic feet from it, as well as from the regeneration fellings. The fuel coupes of the Udamalpet range and the fuel and bamboo coupes of the Pollachi range were worked under contract agency.

In *Madura* the prescriptions of the sanctioned working plans were fairly followed. The old arrears have almost been cleared and the working plan nearly brought up to date as regards the fuel series.

2. Communications and Buildings.

(*a*) *Roads and Bridges.*

11. The details of new works are given below:—

(1) The construction of the Mount Stuart ghat road in *South Coimbatore* was continued under the supervision of the Forest Engineer departmentally and with petty job workers. The work was pushed on along the entire length of the road—6 miles 3 furlongs— and the expenditure during the year was Rs. 68,235-15-0.

(2) A sum of Rs. 435 was also spent by the Forest Engineer on the investigation of a trace to the felling series via Ulandi road.

(3) Other new works in *South Coimbatore* are the extension of Aliar road, 2 furlongs, at a cost of Rs. 340 and construction of an earth slide in Punachi coupe XVI, Rs. 400.

(4) *Kollegal.*—Conversion of a cattle path of two miles in length leading to the village fuel coupes into a rough cart-track at a cost of Rs. 24.

(5) *Tinnevelly.*—Construction of the Vallam road about 4 furlongs in length to tap a fuel coupe at a cost of Rs. 604.

(6) *Tinnevelly.*—Alignment of inspection paths of 5 feet wide in Kodamady and Kannikatty ranges, 14 miles 4 furlongs, at a cost of Rs. 3,455.

12. *Repairs to roads.*—*Kollegal*—69½ miles of existing road were repaired at a cost of Rs. 912. *North Coimbatore*—98 miles of road at a cost of Rs. 3,265. *South Coimbatore*—48 miles 3 furlongs at a cost of Rs. 12,823. *Madura*—240 miles 6 furlongs at a cost of Rs. 9,292. The District Board contributed Rs. 5,765 towards this amount of Rs. 9,292 but these Rs. 5,765 were as per existing rules credited to V (*b*). An appeal was made and in vain to get this unfortunate system altered during the year. *Tinnevelly*—9 miles at a cost of Rs. 3,340.

13. The bullock tramway continued to work till the end of the year and the quantity of timber trammed to Topslip during the year was 112,174 cubic feet or 24,482-19/32 tons miles against 18,372-1/32 ton miles in the previous year. The average lead was 7 miles against 3 in the previous year. There is no means of comparison of the cost of extraction as the tramway is the only means of extraction between the worked coupes and the beginning of the cart road.

(*b*) *Buildings.*

14. A sum of Rs. 7,768 was spent on new works during the year and the important works carried out were—*Kollegal*—Construction of range clerk's quarters. *South Coimbatore*—Erecting sheds in coupe 44, Mount Stuart working circle, and compound wall of Depot Range office at Pollachi. *Tinnevelly*—Construction of a cooly shed at Kuttalam-Kalaruvi and an out-house to the Kodamady inspection shed and construction by the Extra Assistant Conservator, Tinnevelly Development Scheme, of a new hut at Kanadavarai hill and four out-houses to three inspection sheds and one rest house.

(*c*) *Miscellaneous.*

15. The expenditure on new works was Rs. 783, the important works being the deepening of the rest house well at Lingamankarai in *Kollegal*, the digging of two wells and boring one well at Mount Stuart in *South Coimbatore* and the part construction of a well in *Madura*. The water-supply scheme to Mount Stuart was investigated by the Chief Forest Engineer and necessary plans and estimates were prepared and submitted for sanction.

16. *Telephone.*—This was very useful in facilitating the execution of works; but the lines were very frequently out of order and a complaint regarding the bad state of the line was made at

the end of the year to the Deputy Assistant Engineer of Telegraphs. The Government sanctioned the dismantling of the Sethumadai-Tekkadi line and the extension of the line from Anaimalai to Pollachi though no action was taken during the year.

3. Protection of Forests.

(a) *General Protection.*

17. The total number of cases reported during the year was 4,963 both from reserved and unreserved lands against 5,085 in the previous year. The decrease was in all the districts except *Madura* and is reported to be due to the free grazing allowed in reserves for about six months owing to severe drought, to the reduction of cases reported from unreserved lands, to the disforestation of certain reserves lying close to the villages and also to the opening of certain reserves close to grazing during the year. Out of the 4,963 cases reported 4,587 cases were detected. Those together with the 1,626 cases pending at the commencement of the year, i.e., 6,213 cases, were dealt with during the year against 6,073 in the previous year. The number of cases taken to Court was 2,719 and the number compounded 3,494. The total number disposed of during the year was 4,556, leaving a balance of 1,657 at the close of the year.

Of the 2,719 cases taken to Court 1,345 were convicted and 484 acquitted and 890 remained pending at the close of the year. The percentage of acquittal was 26 during the year against 10 in the previous year, the increase being in *Kollegal*, *South Coimbatore* and *Madura* due to the cases withdrawn on payment of compounding fees in Court, having been shown as acquittals as laid down in G.O. No. 2097, Revenue, dated 12th July 1917.

18. The number of compounded cases for which compounding fees were collected during the year is given below :—

District	Number of cases compounded.		Amount of compounding fees.		Grand total.	
	Reserved forests.	Unreserved forests.	Reserved forests.	Unreserved forests.	Number.	Amount.
			Rs. A. P.	Rs. A. P.		Rs. A. P.
Kollegal ..	243	24	3,918 2 0	400 11 0	267	4,318 13 0
North Coimbatore.	611	111	6,339 0 0	2,410 4 8	722	8,749 4 8
South Coimbatore.	147	43	1,147 0 0	853 0 0	190	2,000 0 0
Madura ..	646	297	7,812 0 0	3,698 0 0	943	11,510 0 0
Tinnevelly ..	546	302	4,917 0 0	2,370 0 0	848	7,287 0 0
Total ..	2,193	777	24,133 2 0	9,731 15 8	2,970	33 865 1 8

19. Patrol parties were formed in three troublesome sections of the *Kollegal* district. Each party consisted of the Section Forester and the Forest Guards of the few beats in that section. They live in one place and do the patrol work in a body. This has considerably improved the forest protection, but one patrol party was severely assaulted in the Bargur hills by graziers illicitly grazing cattle. Rs. 95 had to be spent in searching for and taking to the Andiyur hospital the injured subordinates. The matter has been put before the Collector and the offenders are being prosecuted. In *Madura* the special patrol party continued to work in Cumbum Range throughout the year and did good work thereby improving considerably the protection of the forests and the collection of grazing revenue. The party was occasionally put to the execution of warrants in cases of evasions with good results. Forty-four cases were detected by the party during the year and these were compounded for Rs. 1,400. The Ranger of Sholavandan Range while inspecting with several subordinates was severely assaulted by goat herds and had to take leave and go to hospital. The matter has been placed before the Collector and the case is being investigated.

(*b*) *Protection from Fire.*

(Calendar year 1923.)

20. *Special protection.*—The area attempted to be specially protected during the calendar year 1923 was 241,977 acres against 242,360 acres in the previous year and the cost of protection being Rs. 5,285 and Rs. 10,383 respectively. The decrease in the cost is in *South Coimbatore* and *Madura* and is due to the fire-tracing being confined to certain particular areas only. The area burnt during the year was 13,009 acres against 13,498 acres in the previous year, the percentage of successful protection being 94.6 against 94.4 in the previous year.

21. The system of early burning was continued in *North Coimbatore* and *Kollegal*. In *North Coimbatore* an area of 64¼ square *miles* was burnt at a cost of Rs. 446 subsequently there occurred only five fires in this area covering an area of 215 acres and there too the intensity of fire was much minimised. The result of early burning was satisfactory. In *Kollegal* 10 square miles of grassy areas around the sholas in Doddasampagi Reserve was done by subordinates free of cost and 190 acres around the Ponnachi sholas at a cost of Rs. 15. The operation was a success as the sholas escaped from fire. Early burning was also done to a radius of 2 miles round important pens in all the ranges in the division by the

subordinates with the co-operation of the graziers. This induced fresh growth of fine grass on the burnt areas and so the operation was popular with the graziers.

22. *General protection.*—An area of 1,762,825 acres was attempted to be protected under this head against 1,833,373 acres in the previous year, the difference being chiefly in *North Coimbatore* due to certain disforestation and rectification of areas. The area burnt was 14,430 acres against 112,672 acres in the previous year and the percentage of successful protection 99.2 against 98.2 in the previous year.

23. The total number of fires occurred during the year from various causes was 319, the aggregate area burnt being 27,439 as compared with 503 fires and 126,170 acres burnt respectively during the previous year.

(*c*) *Protection against Cattle.*

24. An area of 2,270 square miles, i.e., 69.8 per cent of the total area of reserved forests, was open during the year to grazing of all animals except goats and an additional area of 310 square miles, i.e., 9.5 per cent of the whole area, was open to all animals except browsers, i.e., sheep and goats.

25. *Incidence of grazing.*—In Kollegal the incidence was 6.08 acres per cow unit against 7.40 in the previous year. Actually the incidence was more as in most of the remote areas many thousands of acres of steep and rocky slopes are not grazed over. In *South Coimbatore* the incidence was 14.86 acres per cow unit; but the area opened to grazing includes shola forests and grass hills of the Upper Anaimalais where cattle are seldom or never taken for grazing. The average incidence in *Madura* and *Tinnevelly* was 12 acres and 3.9 acres per cow unit respectively.

The total number of cattle impounded during the year was 17,477 against 19,769 in the previous year and the average for the three years ending 1922-23 being 15,907. The decrease during the year was in all the districts except *Madura*, due to the free grazing concession granted in the three divisions of Coimbatore and to the opening for grazing of a portion of the Kudiramoli Teri reserve in *Tinnevelly* district. There was increase in *Madura* due to better patrol and supervision.

(*d*) *Protection against injuries due to natural causes.*

26. *Spike disease of sandal.*—'*Spike*' continues in *Kollegal* and *North Coimbatore*. To check its spread the uprootal of all spiked trees whether containing heartwood or not was carried out

and they were burnt after removing scented wood from those which yielded it. Fourteen thousand three hundred and thirty trees were so treated in *Kollegal* district at a cost of Rs. 743.

27. *Weeds and climbers.*—In *Kollegal* creeper cutting was done in sandalwood working circles over an area of 16,647 acres at a cost of Rs. 322-9-0. In *Tinnevelly* weeding in teak plantations of Kodamady and Kannikatty Ranges was done on an area of 116 acres at a cost of Rs. 919-14-0; regeneration area of 57⅓ acres in Kannikatty was weeded at a cost of Rs. 167-7-6 and creepers on trees in three coupes of Kalakad working circle were cut over an area of 467 acres at a cost of Rs. 120. Climbers on important species of trees were cut as usual by the subordinates free of cost.

28. *Prickly-pear, lantana and strobilanthes, Kollegal.*—Prickly-pear and thorny bushes are common in the lower slopes of low-lying reserves which are extensively used for grazing of cattle and sheep. The growth, however, is said by the District Forest Officer not to be so thick as to interfere much with the growth of fodder grass but the ground covered by prickly-pear means that the grass is reduced. However, no practical way of dealing with the pest is known. There are other extensive areas for grazing in the higher slopes almost free from these pests. For the eradication of prickly-pear no co-operation can be expected from the villagers and as the labour is scarce the cost would be prohibitive. In *South Coimbatore* lantana forms the chief pest and its eradication is confined only to the regeneration areas and felled fuel coupes. In *Tinnevelly* prickly-pear is not a great pest and the few reserves which were covered with it were since disforested. In moist localities lantana occurs in small patches. Strobilanthes is fast spreading but there is no means of eradicating it at a reasonable cost. In *Madura* the right to remove dead strobilanthes was leased out.

29. *Damage by animals.*—Elephants continued to do damage to forest growth in *Kollegal, South Coimbatore, Tinnevelly* and *Madura*. Nine thousand six hundred and seventy-two teak plants were damaged in the Vannathiparai plantation in *Madura* district. We are not able to arrange to catch elephants in these remote and widely separated areas and with the advent of the tractor the use of the elephant is likely to become less and less so that where they become a nuisance as they undoubtedly do in many places the reduction of their numbers should seriously be considered.

Bison and sambur caused some damage to the young seedlings in *South Coimbatore*, and sambur continued to damage teak seedlings in the Kodamady and Kariar plantations and also those in the forest.

30. *Damage by rain and floods.*—There were heavy rains in *Tinnevelly* in December 1923 and March 1924 and the flood in the Tamparaparni was the heaviest during the last forty years. There were landslips in several roads in two of the ranges and three road dams and one bridge were damaged and one building which was nearing completion, collapsed. In *Kollegal* owing to heavy floods in the streams some of the sandal beds on their banks were washed away.

CHAPTER III.—SYLVICULTURE.

Section I. Formation and regeneration of Forests.

31. *General progress of areas under regeneration.*—(*a*) *Kollegal division.*—This division is a purely agricultural division, more than three-quarters of which consists of reserved forests which comprise 602,627 acres. The people are very backward and the forests are poor, but very suitable for meeting the ordinary wants of villagers. They contain sandal, which constitutes the only commercial product of the forests except a little minor produce. The forests afford a large amount of grazing. Sandal in spite of spike, which has been destroying it for years, now is spreading in the less dry parts of the forest. This I found specially to be the case in a recent tour around Araipalayam a few miles south of Kollegal. A sandal tree has recently been found with a girth of 78 inches and straight hole of 20 feet. This shows what sandal can do in favourable portions of the forest and what great value it is likely to attain to if properly tended. It is hoped that with the regular extraction of spiked trees of *all* sizes the attack may in time subside. It has been much damaged by fire in the past but this is likely to be less so in the future under the present improved system of fire protection. Rosewood, Satinwood and Vengai (Pterocarpus marsupium) regenerate sufficiently well naturally to provide the sort of timber required for meeting villagers' ordinary needs both for construction and agricultural purposes. Coppice growth in the felled areas is satisfactory. Except for measures taken to propagate sandal which are mentioned later and the cutting over of coupes for coppice no special and regeneration work is undertaken in the division.

(*b*) *North Coimbatore* division.—The District Forest Officer's remarks under this heading are *Nil*. The bulk of the division which contains the *North Coimbatore* hills is much the same as *Kollegal* and the same remarks apply to a considerable extent. These hills contain sandal and bamboos which are dealt with commercially. The sandal has been suffering from spike as in *Kollegal* but it is also spreading naturally and in a recent tour I was surprised to find so much healthy sandal. The rainfall and the soil are both poor

except in the Minchiguli valley with the result that timber is of small size and slow growing and only suited for local village wants. There is a great deal of grazing. The regeneration is sufficient for the type of forest. There are a large number of fuel and small timber coupes on the plains which are regenerated as coppice and except for these, some sandal propagation work and some experimental regeneration in the Minchiguli valley, no special regeneration works have been undertaken in the division.

(*c*) *South Coimbatore division.*—At Mount Stuart the regeneration of the Mount Stuart working circle under a concentrated system of regeneration by means of clear felling, burning the useless material, dibbling, weeding and tending is proceeding in a highly satisfactory manner. The crop being regenerated is teak which is ideally suited to the locality except that where the ground is too moist for it, *Terminalia tomentosa* and other suitable species are introduced. The system aims at an underwood being established in due course and experiments are being made to ascertain the most suitable species. At present rosewood is being tried as this species is like a shola tree in that it grows very slowly at first and therefore does not in this locality compete with the teak at first as it only grows by inches to the teaks yard. Although rosewood later requires light it is hoped that the frequent and heavy thinnings prescribed for the teak together with the fact that the teak is leafless for a portion of the year will give sufficient light for this valuable species (rosewood) to prove suitable as an underwood. What must be guarded against is the introduction of *Artocarpus hirusta* and another species at too early a period as they might interfere with the teak whereas it is an underwood which is being sought for. The 1919 plot has been undersown with rosewood and the growth of the plants is being watched. The 1923 plot, 251 acres, has been broadcast sown with rosewood seeds. Similar generation work is being carried out on a much smaller scale in the Punachi range and is proceeding satisfactorily. The District Forest Officer makes no mention in his report of regeneration in forests not under working plans or schemes.

(*d*) *Madura district.*—Natural regeneration is reported to be fair throughout the district and that by coppice, under which system there are a large number of felling series, good. Sandal saplings are found growing in Kombai reserve of the Cumbum range and this species is spreading naturally in patches on the tops of two hills and in their valleys; none of them have attained exploitable size yet. Sandal is also doing well in the Unjalnachi reserve of Palni range and in the Sirumalai reserve of Ayyalur range. There is sandal in the Sathiar valley which locality is reported to be specially suited to it.

(*e*) *Tinnevelly district.*—In the Kuttalam range, regeneration of coppice shoots is satisfactory in all the fuel coupes.

The growth of teak is generally good particularly where *Strobilanthes* is absent. Seedlings of *Pterocarpus marsupium* (Vengai) (*Albizzia Lebbek and Dalbergia latifolia* (rosewood) are found in plenty under the parent trees in the portion of Padarmalai working circle newly added. *Strobilanthes* affects to some extent the growth of these seedlings as well as the coppice shoots.

In the Koilteri working circle in the Kodamady range regeneration of teak, *Pterocarpus marsupium* (Vengai), *Albizzia Lebbek and Chloroxylon swietenia* has been good. A majority of the teak seedlings that have sprung up are those that died back in previous years. Coppice growth of all the important species has been good in the Koilteri and the old Sivasailam work circles.

In the Srivilliputtur range natural reproduction from both seedlings and coppice was good. The principal species found are *Albizzia amara, Accacia leucophloea*, Teak, *Pterocarpus marsupium* (Vengai), *Terminalia tomentosa* and *Chebularius* and *Dalbergia latifolia.*

Reproduction in the sandalwood area was good.

A large number of Teak and Vengai (Pterocarpus marsupium) seedlings are found in the Kalakad and the Vadakarai working circles.

Coppice reproduction of the different species has been good. Natural reproduction from seed is poor in Manpothai, Kolundumamalai and Terku Viravanallur reserved forests. Seedlings of *Dalbergia* (spinosa) are found in fair abundance in these forests.

In the Kannikatty regeneration area there is plenty of natural regeneration of *Dichopsis elliptica* in the 1921-22 and 1922-23 areas under parent trees. There are plenty of seedlings of *Messua ferrea* in the first and second strips of the 1923-24 area. Seedlings of *Gluta, Cullenia excelsa, Eugenia gardineri, Lansium* and *Chinnamum* are found.

In the Kodamady regeneration area, there is fair amount of *Fillicium decipiens, Hardwicka pinnata, Pygeum* and *Chickeracia tabularis* from self-sown seeds.

32. (*ii*) *Establishment of reproduction under working plans or schemes* (*with Form* 18-*A.*)

(*a*) *Mainly natural.*

Kollegal.—Nil.

North Coimbatore.—Nil.

South Coimbatore.—For no area under working plans is natural reproduction mainly relied on now. In the Mount Stuart working circle which is an ideal locality for teak, natural reproduction was relied on for about thirty-two years which was a disastrous loss of time. It has since 1918 been replaced by artificial regeneration under the system of clear felling, burning the useless material after the saleable timber has been removed, dibbling, weeding and tending. The same system has been introduced in the Punachi working circle which is the other timber working circle in the district.

Madura.—Nil.

Tinnevelly.—Nil.

33. (*b*) *Mainly artificial.*

Kollegal.—Nil. In the coupes treated under the coppice systems no artificial filling in of blanks is undertaken.

North Coimbatore.—Ditto.

South Coimbatore.—During the year the 251 acres of concentrated regeneration for teak, and *Terminalia tomentosa* in certain swampy parts which had been cleared and dibbled the previous year became fully stocked $4\frac{1}{2} \times 4\frac{1}{2}$ feet as the result of the operations and subsequent filling up of gaps was weeded as often as necessary. The result is a very fine and fully stocked crop in a locality which produces the finest teak and *Terminalia*. Two hundred and twenty-six acres were cleared and dealt with under the above mentioned system. The area should have been 250 acres the deficit being due to a mistake in survey only discovered too late to be remedied. At the close of the year 431 acres had been established with teak and a small amount of *Terminalia*, Venteak, etc., and 226 acres were awaiting the May showers and June monsoon to bring up the seeds sown and eight acres had been established with pure rosewood except for some natural reproduction of teak sprung from seeds naturally in the ground at the time of clearing. The future normal area of this regeneration work should be 250 acres a year. In Punachi working circle three acres of similarly concentrated regeneration was carried out in 1922-23, eight acres in 1923-24 during which year 25 acres were prepared. The normal area here in future should be fifty acres a year.

No artificial filling in of blanks is undertaken in the coppice series.

Madura.—Nil. No artificial filling in of blanks is undertaken in the coppice series.

Tinnevelly.—Nil.

34. (*c*). *Afforestation.*

Kollegal.—**Nil.**

North Coimbatore.—An experiment in shola reclamation or extension has been undertaken near Minchiguli during the last seven years. The experiment has for its object the linking up of four small sholas (plots of ever-green forest) into a larger one whereby the high coarse grass would be suppressed and the conservation of the sholas secured. Trial has been made of dibbling of *Eugenia jambolana, Cedrela toona,* sandal, *Accacia dealbata* and other seeds, the plainting of posts of *Ficus* and *Macaranga.* It has been shown that *Ficus* and *Macaranga* will succeed, but these are of no value unless all other species fail. The species that will prove of most value are *Cedrela toona,* sandal and perhaps *Eugenia. Cedrela* is indigenous to the locality and can be grown successfully from dibbled seed in years of normal rainfall. The sandal plants raised by dibbling seeds are doing well at this elevation of well over 4,000 feet and should prove of value in due course. *Eugenia* jambolana thrives and may stand the cost of transport eventually. It is an interesting experiment and should continue until one compact shola is obtained. Then it can be considered whether an extension of the operation is desirable.

South Coimbatore.—Nil.

Madura.—Nil.

Tinnevelly.—Nil.

35. *Section (iii). Plantations and other forms of regeneration not under working plans or schemes.*

Kollegal. (*a*) *Plantations.*—Nil.

(*b*) The work of sandal extension by means of plots one chain square near water which was started during the previous year was continued and also extended to every district in the circle. The plots are cleared, fenced, dibbled with sandal seeds and watered by the local Forest Guard at no expense and are meant to be oases of sandal trees which will in due course bear fruits which will be spread by birds and result in general extension of sandal. In this division at the end of the year 10,630 seedlings have been established under this system, 5,011 in the previous year and the balance during the year under report. *Kollegal* is a natural sandal district but this system will greatly assist the rapid extension of this valuable species.

North Coimbatore. (*a*) *Plantations.*—The experimental work of shola extension has already been mentioned under afforestation. Another experiment has been made in the same neighbourhood, viz., the Minchiguli valley to test concentrated regeneration of *teak, rosewood, Terminalia tomentosa* and *Pterocarpus marsupium* by dibbling on a cleared area. The experiment is a small one and successful. This valley produces fine rosewood timber and fair

Terminalia and *Pterocarpus*. The teak is doing well. The experiment is not being extended for want of funds but the results are there for future guidance when financial times become more propitious.

(*b*) Similar sandal extension work to that mentioned in *Kollegal* was undertaken during the year and 7,522 seedlings were established during the year which figure would have been considerably higher but for the extreme and prolonged drought which caused some streams thought to be perennial to dry up.

South Coimbatore. (*a*) *Plantations*.—Nil.

(*b*) Sandal operations were started at Mount Stuart where no sandal exists at all. It is an experiment as regards this locality which is so different with its fine soil to ordinary sandal country. A few plants were established and their progress will be watched with interest and the experiment continued. Similar operations were undertaken in other ranges of the district with some success.

Madura. (*a*) *Plantation work*.—Nil.

(*b*) Sandal seeds were dibbled in all the six ranges in the district and 666 seedlings were established during the year,

Tinnevelly.—During the year 26.75 acres of teak plantation at Kariar and 29 acres at Kodamady were established during the year in continuation of the planting done in previous years and in pursuance of the development plan agreed upon. During the year the experimental shola regeneration work was continued but on a reduced scale owing to lack of funds. This is most important work as the whole future of the sholas depends on it. The object of our work in these forests is to utilize the large quantity of valuable timber available and to improve the forest by suitable regeneration operations which will give us a forest composed entirely of the most desirable species. Our work during the last three years extends over 474 acres. The results show that we can effect this regeneration without difficulty, provided sufficient enthusiasm is bestowed on the work, while the overhead crop is on the ground. By felling the large trees, over an area of five acres stocked with the best species some of which had attained a height of over 20 feet, it was found that no undue damage was done. The Conservator in the sixth Circle has shown that dragging the timber from such fellings only caused 7 per cent damage to the saplings. These two experiments show that shola forests can be regenerated with the overwood standing which is so essential for such regeneration and that the final felling of the overwood can be regarded with equanimity. This is a great advance

in our knowledge in this Presidency and the correct policy is to go ahead with the regeneration work as fast as possible until we are five years ahead of the felling. The felling area in these forests may amount to three hundred acres a year but funds were only sufficient to do fifty acres on the Kodamady side where exploitation will commence. Fifty-three acres were also treated in the Kannikatty range.

The areas dealt with in the previous year were treated according to the rules prescribed for dealing with shola regeneration.

As in other districts sandalwood extension work was undertaken on the lines already described and 3,393 seedlings were established.

36. (*iv*) *Tending.*

Kollegal.—Nil.

North Coimbatore.—Creeper cutting was done free of cost by subordinates in the small experimental teak plantation at Ennamangalam, Bhavani Range.

South Coimbatore.—In the original experimental plot of five and a half acres to prove concentrated regeneration at Mount Stuart some of the large trees left on the plot were removed during the year. This plot received its first thinning last year, the sixth of its establishment. A first thinning in the small teak plot at Topslip established in 1917. The first thinning in the main regeneration areas is due to be done next year.

The prescribed weedings in the regeneration areas at Mount Stuart and Punachi were undertaken. The sandal plot near Thalingi was tended.

Madura district.—The Sirumalai sandal plot was tended by subordinates free of charge.

Tinnevelly district.—The necessary weeding was done in the teak plantations and thinning was carried out in the teak plot at Kariar which required it. The sandal growth round Mundanthorai was tended as was the sandal area in Srivilliputtur Range.

37. (*v*) *General.*

Kollegal.—Nil.

North Coimbatore.—Nil.

South Coimbatore.—Weeding and climber cutting round coppice shoots were carried out in the three fuel coupes of Udamalpet Range over 196 acres.

Madura.—Nil.

Tinnevelly.—Nil.

CHAPTER IV.—EXPLOITATION.

System of Management.

(*a*) *Major Produce.*

38. The area under working plans, including temporary schemes sanctioned, during the year was 1,099 square miles and the various sylvicultural systems in force are shown below :—

	Area in square miles.	Percentage to the total area under working-plan.
Selection method—		
(*a*) As per sanctioned working-plan	28	2·55
(*b*) As per temporary schemes sanctioned for removal of agricultural implements ...	319	29·03
(*c*) As per temporary scheme sanctioned for the extraction of dead jal timber ...	1	·09
Simple coppice	378	34·39
Coppice with standard	125	11·37
Extraction of spiked sandalwood	248	22·57
Total ...	1,099	100·00

Besides the above, an additional area of 29 square miles is being worked in *Kollegal* under simple coppice system. The working plan for this area is under revision. The forests in Kodaikanal and Palni Ranges in *Madura* district which are not under any working plan are worked under simple coppice system. The dead sandal wood and that damaged by elephants in *Tinnevelly* was collected departmentally and sent for sale to *Vellore*.

(*b*) *Minor Forest Produce.*

39. In *Kollegal* the removal of bamboos under the unregulated system continued in one of the ranges as the demand was small, local and scattered in the range, and two coupes in another range were worked under the regulated permit system owing to the absence of contractors to work the areas allotted. The remaining coupes were sold standing to contractors. The bamboo coupes in the other districts were sold as usual.

40. The right to collect all other minor forest produce in all the districts except honey and wax collected departmentally in *Kollegal*, was sold to contractors.

41. In *Kollegal* the system of issuing permits for the removal of grass at 3 pies per head-load was continued and a sum of Rs. 200-2-3 was thus realized during the year. Free removal of

grass was allowed owing to failure of rains and scarcity of fodder. In *North Coimbatore* 1,691 tons of fodder grass were removed by purchasers and consumers for Rs. 1,551 and in *South Coimbatore* Rs. 608 was realized from the same source. Stones, thorns and earth were removed in *Madura* to a limited extent on permits.

42. Grazing was as usual controlled by permits and the number of animals permitted to graze in the reserved forests during the year was 263,494, the fee realized being Rs. 1,26,971.

2. *Agency of Exploitation.*

(*i*) *By Departmental Agency.*

43. *Major Produce.*—Timber and sandalwood were extracted as usual departmentally. The extraction of drag poles in *North Coimbatore*, conversion of spokes and felloes from the top ends of teak trees felled in *South Coimbatore*, and collection of dead and wind-fallen trees in *Madura* were also done departmentally.

44. *Minor Produce.*—Collection of seeds required for sowing and bamboos for departmental works was done departmentally as also the honey and wax in *Kollegal*.

(*ii*) *By Purchasers.*

45. *Major Produce.*—The fuel coupes in all the districts were as usual sold standing to contractors. The agricultural implements coupes were worked under the regulated permit system. The collection and removal of spokes and felloes in *South Coimbatore* by purchasers were permitted in the regeneration areas.

46. *Minor Produce.*—Bamboo coupes in all the districts and the right to collect other minor produce (except honey and wax in *Kollegal*) were leased out to contractors.

(*iii*) *By right and privilege holders and free grantees.*

47. The quantity and estimated value of the different kinds of produce removed by right and privilege holders and free grantees are shown in the following statement:—

	Timber in thousands of cubic feet.	Value.	Fuel in thousands of cubic feet.	Value.	Bamboos in value.	Grazing in value.	Other minor produce.	Total.
		Rs.		Rs.	Rs	Rs.	Rs.	Rs.
Right and privilege holders.	..	..	..	..	..	1,026	264	1,290
Free grantees ..	34	3,560	..	..	16	375	99	4,050

48. *By right and privilege holders.*—In *Madura* the right to graze free in the Ampthill Downs reserve and the concession to quarry stones and road materials free of charge from the reserved forests and unreserved lands to the departments of Government and local bodies and also the concession to ryots to quarry stones, etc., from unreserved lands for *bona fide* domestic purposes, were continued during the year. In *Tinnevelly* the removal of palmyra leaves to the value of Rs. 264 was allowed.

49. *By free grantees.*—The following free grants were made to rebuild houses destroyed by fires and flood. *North Coimbatore.* 6,920 c.ft. of timber valued at Rs. 712 and eighty bamboos to the value of Re. 1. *South Coimbatore* palmyrahs and bamboos to the value of Rs. 102. *Madura* 2,313 c.ft. of timber and 200 c.ft. of fuel to the value of Rs. 345. *Tinnevelly* sixteen posts of 24,765 c.ft. valued at Rs. 2,503 and bamboos to the value of Rs. 8.

3. *Outturn and sources of forest produce.*

50. The subjoined statement shows the total outturn of major produce and the total value of minor produce from all classes of forests by all agencies during the year under report as compared with the similar details for the preceding year :—

Agency of exploitation.	Timber and sandalwood in thousands of cubic feet.		Fuel in thousands of cubic feet.		Bamboos in value.		Minor produce including grazing in value.	
	1922-23.	1923-24.	1922-23.	1923-24.	1922-23.	1923-24.	1922-23.	1923-24.
					Rs.	Rs.	Rs.	Rs.
By Government agency.	207	167	3	2	65	201	2,230	3,058
By purchasers ..	890	343	2,487	3,350	41,810	34,695	2,33,962	2,34,721
By right and privilege holders.	..	..	..	..	..	..	2,411	1,290
By free grantees ..	11	34	1	..	226	16	..	474
Total ..	1,108	544	2,491	3,352	42,101	34,912	2,38,603	2,39,543

51. *By Government Agency.*—The decrease under timber was in *South Coimbatore* due to the fact that only logs of those species that would pay to drag, and cart to the sale depot were exploited during the year as there was loss in previous years in exploiting logs of many species for which there was little demand. Further there was no outturn from the Mount Stuart Ghat road unlike last year. The increase under minor produce was in *South Coimbatore* due to the sale of a larger quantity of elephant tusks.

52. *By purchasers.*—The decrease under timber was in all the district except *North Coimbatore* due to the non-sale of timber coupe in Ayyalur *Madura* district and also to the realization of a smaller amount from darkhast lands. The increase under fuel was in *Kollegal* due to the popularity which the village fuel coupes and agricultural implements coupes are gradually gaining in the district, and also in *Madura* and *Tinnevelly* due to the increased sale of trees in unreserved lands. The decrease under *bamboos* was in *Kollegal, North Coimbatore* and *Tinnevelly* due to a lower price fetched at the sales. *Under minor produce including grazing,* the increase was in *Kollegal* due to the influx of *Salem* cattle for grazing and in *South Coimbatore* due to the sale of Konnai bark (Cassia fistula) not sold in the previous year and also to better prices realized by the sale of minor produce.

53. *Right and privilege holders.*—The decrease under *Minor produce* was in *Tinnevelly* due to the fact that in the year 1922-23 a large amount of assessment outstanding from previous years was collected from owners of patta palmyrah trees and that there was no such realization during the year under report.

54. *Free grantees.*—The increase under timber in *Tinnevelly* is due to larger grants made to the people to rebuild their houses destroyed by floods. The free grazing allowed in Teri reserve in *Tinnevelly* accounts for the increase under minor produce including grazing.

CHAPTER V.—FINANCIAL RESULTS.

55. The subjoined statement compares the financial results of the year with those of the previous year.

	1922-23.	1923-24.
Revenue	12,43 732	13,23,773
Deduct refunds	— 3,425	— 1,670
Net ...	12,40,307	13,22,103
Expenditure.		
Conservancy and Works	3,34,194	3,84,203
Establishments	4,34,411	4,24,070
Total ...	7,68,605	8,08,273
Surplus	4,71,702	5,13,830

56. Seventy-one per cent of the revenue was derived from major produce, 10 per cent from minor produce, 10 per cent from grazing and 9 per cent from miscellaneous sources. Thirty-three per cent of the expenditure was incurred on exploitation, 25 per

cent on upkeep and improvement and 42 per cent on miscellaneous items.

57. The increase under revenue was due (i) to the extraction and sale of a larger quantity of sandalwood in *Kollegal* and *North Coimbatore*, (ii) to the collection of more revenue from sale of trees on darkhast lands and (iii) to the local fund contributions received in *Madura* for the maintenance of forest roads having been credited to V (*b*). Revenue instead of keeping them under Civil deposits. The revenue outstandings at the end of the year was Rs. 1,09,431, of which Rs. 40,360 actually fell due within the year. The estimated value of the produce at the sale depot was Rs. 1,44,508 against Rs. 67,796 in the previous year.

Expenditure.

58. *Conservancy and Works.*—The increase under this head was due to the extraction of more sandalwood for sale in *Kollegal* and *North Coimbatore*, to the expenditure of Rs. 13,835 incurred by Mr. Clear while in charge of *North Coimbatore* division for despatch of timber for sale at the British Empire Exhibition in London having been included by the Accountant-General in this circle accounts, and also to a larger amount spent by the Forest Engineer on Mount Stuart Ghat road work.

59. *Establishments.*—The decrease was due to junior officers being placed in charge of districts where seniors had been provided for, and also to the restricted touring during the year.

CHAPTER VI.—RESEARCH AND EXPERIMENTS.

60. *Tinnevelly* district.—In the *Tinnevelly* shola forests the experimental regeneration work was continued. The unsolved questions last year were the extent of the damage that the felling of the gigantic overwood trees and the removal of the logs which would be obtained from them would have on a properly regenerated area. We had proved that there is no special difficulty in getting regeneration of the best species at a moderate cost prior to the final felling of the overwood and it was essential to know what damage would be done to such regeneration by the felling and conversion of the overwood. An area at *Kannikatti* of 4.35 acres, one acre of which had been planted and sown with *Hopea* and *Gluta* so far back as 1,908 was selected. During the last three years this area has been specially tended with a view to giving these trees, some over 20 feet high, more light and space. The whole of the 4.35 acres was fully stocked. The overwood was felled during the year and it is pleasing to find that the damage done to the young crop was small. This was as far as we could carry the experiment in *Tinnevelly* as we have no elephants or tractors at

present to drag out the felled timber. The Conservator, VI Circle, Mr. R. D. Richmond, was fortunately able to give us the balance of information required as he was able to both fell, convert and drag the timber felled under a similar experiment and he has shown that the damage by dragging to the young crop only amounts to 7 per cent. This is most satisfactory and shows us that we can regenerate shola forests with the best species in their natural shade and then fell and convert the overwood so as to leave sufficient regeneration of the most desirable species to grow up into a much important shola forest. We now know where we stand as regards this most important sylvicultural question which we did not know this time last year.

Test measurements of saplings and seedlings were made on the above mentioned area to show the effect of the renewal of the overwood.

Seventeen and a half tons of green reed were cut in the reed forest which gave 11-1/3 tons of dry reed. These were sent to the Paper Expert at Dehra for testing.

Five thousand eight hundred acres of the shola forest along the route that exploitation is likely to be first undertaken were stock valued and the results recorded. This was deemed to be sufficient for our present purposes.

Sandal propagation on the lines laid down was carried out in all the ranges except in Tinnevelly range and a considerable amount of success achieved.

North Coimbatore division.—In the *North Coimbatore* division the experimental work of shola extension at Ainagiri could not be added to as the trifling amount of funds Rs. 120 could not be allotted but they are being continued during 1924-25. A recent inspection showed that some interesting results had been obtained from the previous two years work. There are four small now disconnected sholas and an effort was being made to bring them back into one solid one. *Eugenias* and *Ficus* (from posts) have been shown to be successful but much more valuable results may be expected from the success achieved with *Cedrela Toona* and sandal; these are valuable paying species and have been raised from dibbled seeds. The sholas had been well fire protected which in itself had resulted in a quantity of saplings of quick growing species. The experimental cost is very small and if the work is continued for a few years the District Forest Officer should have the satisfaction of securing a valuable block of shola and future operations can be based on the results obtained. Experimental

sandal extension work was continued during the year with good results.

Kollegal division.—The special sandal propagation work was continued during the year and in spite of the great drought 5,619 seedlings were raised in 50 forest guards' beats. Research of the Range Officer, Kollegal, has revealed the fact that there are large sandal trees existing. One is said to have a girth of 78 inches and a straight bole of 20 feet. This fine specimen will be secured if possible for the Forest Museum.

The experiment of burning the grass round the sholas in the Doddasampagai reserve was continued on an extended side and was found to be effective in preventing much of the damage normally caused by fire and in preventing fires reaching the sholas.

South Coimbatore.—The experiment to introduce sandal into the Mount Stuart forests and elsewhere in the district was commenced and 400 plants were raised. The future results will be interesting.

The experiments with rosewood as an underwood to teak are continuing and I do not see why they should not succeed. Their slow growth at first enables the teak to secure a long lead. Although rosewood is later on a light demander the heavy thinnings in the teak combined with the fact that the teak is leafless for several months of the year should give rosewood sufficient light. An attempt to introduce *Artocarpus* as an underwood by means of seeds obtained from a far distance in the sixth Circle was a failure. Even if seeds can be obtained nearer it is not the time to introduce this species at present, twenty-five years hence will be quite time enough as we do not want it to compete with the teak as it might do if successfully introduced at this stage.

Madura district.—In this district 666 sandal seedlings were raised on the approved lines so we may look for the gradual extension of sandal in due course.

CHAPTER VII.—ADMINISTRATION.

61. There was no change in the territorial jurisdiction of the districts during the year. Towards the close of the official year the District Forest Officer, Madura, submitted certain proposals for the redistribution of sections in 4 out of 6 ranges in the district thereby altering the size of these ranges for their proper administration. The proposals were accepted by the Conservator just after the close of the year.

A list of officers who were in charge of the circle and of the several districts therein is appended to this chapter.

62. *Health of the establishment and sanitation.*—The health of the establishment was not satisfactory in all the districts except *Tinnevelly* where it is reported to have been good on the whole and several subordinates had to be granted leave on account of ill-health. Plague and influenza were prevalent in *Kollegal* and plague and cholera in *Madura*. Ranger Mr. R. B. Salisbury died in the Madras General Hospital after an operation for appendicites. Two foresters, 7 forest guards and 2 range peons died of malaria and other ailments.

Sanitation.—In *South Coimbatore* the undergrowth round the Mount Stuart and Attakatti were cleared and burnt at a cost of Rs. 358 as an antimalarial measure.

63. *Tours.*—Mr. Tireman the Chief Conservator of Forests inspected the Mount Stuart forests in September 1923. The Chief Conservator, Mr. Martin Chief Forest Engineer, and Mr. Raitt the Paper Pulp Expert, Dehra Dun, visited Tinnevelly in February 1924 and inspected the reed area beyond Wood's camp. The regeneration operation at Kannikatty and Kodamady and the teak plantation at Kodamady were also inspected by the Chief Conservator. The Chief Forest Engineer inspected the new ghat road and the proposed water site at Mount Stuart in November 1923.

The Conservator of Forests visited all the districts during the year and the total number of days spent on tour was 252.

All the District Forest Officers spent more than the prescribed period on tour during the year except the District Forest Officer *North Coimbatore*, who toured 161 days only the short touring being due to the change of officers in charge of the district.

64. *Inspection of offices—By the Conservator of Forests.*—All the District Forest Offices in the circle were inspected during the year, the result being generally satisfactory.

By District Forest Officers.—All the Range offices in the circle were inspected during the year by the respective District Forest Officers.

65. *Audit of District Forest office accounts.*—The accounts of all the District Forest offices except *South Coimbatore* and *Tinnevelly* districts, were audited during the year by the Assistant Inspector of Local Fund Accounts and the result is reported to have been satisfactory.

66. *Vernacular Training School.*—The school was held at Mount Stuart in *South Coimbatore* division. The session commenced working on 1st June 1923 and ended on 30th November 1923. Of the 29 students deputed from all the districts together one was withdrawn after a few days on account of chronic malaria he was suffering from. The session was successful, the work and conduct of the students being satisfactory. Of the 28 students

trained in the school 10 were placed in the first and the rest in the second class.

Circle Office.

Mr. H. F. A. Wood was in charge of the Circle throughout the year.

Officers in charge of Districts.

Kollegal ...	M.R.Ry. J. Sadasiva Ayyar Avargal, B.A., Extra Assistant Conservator of Forests, throughout the year.
North Coimbatore.	Mr. D. F. Stileman, Deputy Conservator of Forests, from 1st April to 13th November 1923. Mr. M. F Bridge, Deputy Conservator of Forests, from 14th to 26th November 1923. Mr. T. Clear, Deputy Conservator of Forests, from 27th November 1923 to 23rd February 1924. Mr. R. S. Browne, Assistant Conservator of Forests, from 24th February 1924 to end of the year.
South Coimbatore.	Captain W. G. Dyson, Deputy Conservator of Forests from 1st April to 3rd May 1923. Mr. M. F. Bridge, Deputy Conservator of Forests, from 4th May 1923 to end of the year.
Madura ...	M.R.Ry. K. A. Chengappa Avargal, Deputy Conservator of Forests, from 1st April 1923 to 9th October 1923. Mr. H. R. M., Law Assistant Conservator of Forests, from 10th October 1923 to end of the year.
Tinnevelly ..	M.R.Ry. George Venugopaul Avargal, B.A., Deputy Conservator of Forests, from 1st April to 28th June 1923, 29th September 1923 to end of the year. M.R.Ry. A. Hanumantha Rao Avargal, Extra Assistant Conservator of Forests, from 29th June to 28th September 1923.

CHAPTER VIII.—GENERAL.

(1) *Formation and management of panchayats.*

67. Three reserves of 2,796.13 acres in extent, were handed over for the panchayat management in *Tinnevelly* district during the year; and no new panchayats were formed in the other districts.

The management of the Andiyur panchayat in *North Coimbatore* is reported to have been unsatisfactory. In *Madura* the District Forest Officer states that the management has been on the whole satisfactory except in the case of Perumalmalai reserve in Nattam Range where some of the panchayatdars were unwilling to continue the management and the Collector has therefore ordered the resumption of the reserve from 1st July 1924. He however adds that panchayatdars do not appear to control grazing in the areas and that the incidence of grazing is very heavy.

(2) *Measures for improving local supplies and facilities.*

68. *Manure leaf supply.*—The demand for manure leaf in *Kollegal* being very limited, was as usual met from private forests and

unreserves. In *Madura* nothing was done by the department in this direction as the growth of leaf manure by the ryots themselves in their patta lands, is being encouraged by the officers of the Revenue and Agricultural Departments and the Forest Department had been forbidden to offer any facilities as such were considered to be a retrograde step. In *Tinnevelly* permits for the removal of manure leaves of inferior shrub species were issued in the Nanguneri Range. Proposals for the sale of similar species of manure leaves in the Srivilliputtur Range on permits at full market rates were submitted and sanctioned towards the end of the year.

69. *Supply of fuel and agricultural implements.*—The fuel coupes near *Kollegal* were as usual sold standing to contractors; but owing to the incoming of the Jaghir fuel in large quantities the prices fetched were very low. Six small village coupes opened for the benefit of villagers were also worked during the year, 4 on the controlled permit system and two through contractors. The controlled permit system is reported to be very popular with the ryots and the forests are also benefited thereby as the stumps are well trimmed before any removal is effected under the supervision and control of the beat subordinates on fixed days in the week. The inhabitants of *Kollegal* division are so backward at present for any other system. They are charged ten annas a cartload at which rate they make no complaint and usually do their own felling. This has increased the revenue as compared with contractors' working by 50 per cent. The six agricultural implements series opened in 1922-23 were also worked under controlled permit system. On fixed days in the month a forester goes to the forests and sells permits to villagers who also go to the forests on those days, on payment of seigniorage fees. The trees are then felled under the supervision of the forester and his guards who see that coppicing is well done before removal is effected. The villagers are satisfied with this system which has stopped forest offences and improved protection of forests. This is a simple and useful system. There are large areas of uncommercial forests available which contain just the sort of timber villagers require. The coupes are worked in rotation and removals are charged for at a fixed tariff and good coppicing insisted on. As these forests are protective forests the soil is not denuded by such selection fellings.

The concession granted as a result of the Forest Committee's Conference in 1921, in the matter of issuing one grazing permit for the whole range instead of for each block, penning cattle free of cost and reducing the period of closure to grazing of worked coupes to five years, is much appreciated by the ryots who bring their cattle in large numbers for grazing.

North Coimbatore.—Four small timber felling series were opened in Satyamangalam Range for the supply of ploughs and small timber required for plain villages and three coupes in Talamalai Range for agricultural and domestic wants of the hill villages. The demand for these were rather poor, the villagers getting most of their requirements from unreserves. Consequently the felling was not done regularly and stools not trimmed properly. The ryots have evidently not learnt to appreciate this system yet but they doubtless will do so as time goes on. Permits for removal of thorns from fuel coupes and bamboos from three coupes were also issued in Satyamangalam Range. The demands of the villages in the remaining two ranges were met as usual from fuel coupes leased out to contractors.

South Coimbatore.—The right to collect spokes and felloes from the top ends of the felled trees was leased out as usual but the quantity collected was small due to the prohibitive transport charges. Brake poles were collected by the mail cart contractor. The demand for agricultural implements is mostly met by illicit removals from the unreserves. There were two coupes opened for the removal of agricultural implements, one in Pollachi Range and the other in Udamalpet Range. There was no demand from the villages for trees from the coupe in Pollachi; and the removal effected from the coupe in Udamalpet was 353 ploughs, 11 yokes and 17 plough shafts.

Madura.—The demands of the villagers were met by the coupe contractors in accordance with the terms of their agreements. The supply of fuel to Madura town was considerably increased by working more arrear coupes and there was a corresponding fall in price of fuel during the year.

Tinnevelly.—As in previous years permits were issued by the Revenue Department for the removal of babul trees for agricultural implements and the seigniorage fees collected were credited to forests. There is no difficulty in *Tinnevelly* district as regards agricultural implements as so many ryots own *accacia planifrons* trees or plantations.

70. *Free grazing.*—In consideration of the unusual drought during the latter part of the year the Collector of Coimbatore, with the concurrence of the Chief Conservator, issued orders admitting all cattle excluding sheep and goats, free without permits to all reserves ordinarily open to grazing, except fuel coupes and plantations, in *Kollegal* and *North Coimbatore* districts and Pollachi and Udamalpet Ranges of *South Coimbatore* district. Free cutting of grass and penning within the reserve without restriction were also allowed.

71. *Improvement of water supply in grazing grounds.*—In *Kollegal* three wells were sunk in the year for the benefit of cattle at a cost of Rs. 2,332. In *North Coimbatore* four tanks in grazing areas were repaired and deepened during the year at a cost of Rs. 785. In *Madura* two wells in grazing grounds were repaired and improved at a cost of Rs. 234 and a fair supply of good water is available always for cattle. In *Tinnevelly* district one old tank in the grazing compartment was deepened at a cost of Rs. 315 and it contains water during the hot weather. In *South Coimbatore* no need is felt in this direction as perenninal streams flow through most of the grazing blocks.

(3) *Timber Transit Rules.*

72. There was no change in the rules and they continued to work satisfactorily. Under these rules nine cases in *Kollegal*, five in *North Coimbatore* and ten in *Madura* were detected during the year.

The rules framed for the purchase and transport of sandalwood trees from pattadars by private dealers continued to work in *Kollegal* and *North Coimbatore* districts. One of the private dealers in *Kollegal* illicitly removed about 50 tons of Government sandalwood and he is now being criminally prosecuted along with the forest subordinates who connived at the removal.

(4) *Jungle tribes.*

73. The number of sholaga settlement in *Kollegal* rose from 11 to 12 during the year and the total area occupied was 232 acres. The sholagars were allowed as usal free cultivation in the areas occupied by them and they continued to supply labour to the department.

An extent of 26.57 acres in North Bargur reserve granted for dry cultivation on an assessment of Rs. 12-13-0 continued to be enjoyed by the sholagars.

In *North Coimbatore* sholagars are being encouraged by the grants of leases of lands within the reserves for cultivation and by being employed in sandal felling and in other departmental operations. They are reported to be habitual forest offenders.

In *South Coimbatore* the mulcers and Kadirs were employed as usual on forest work of some sort. In consideration of services rendered to the department by the hill tribes they were allowed to cultivate lands free of assessment. 12.50 acres of land for wet cultivation and 25 acres for dry cultivation are also held by the hill tribes on lease with assessment.

The Palians, the only jungle tribe in Madura, are said to be gradually becoming absorbed among the agriculturists.

In *Tinnevelly* in the forests of Srivilliputtur and Kuttalam Ranges there live under rocks and trees the Palayars, the real jungle tribes. They are chiefly employed by the minor forest produce contractors for nominal wages and they live generally on roots and herbs.

(5) *Mining and Quarrying.*

74. Nil.

(6) *Live-stock.*

75. *Elephants.*—*South Coimbatore* is the only district in the Circle where there is live-stock. There were 22 elephants at the commencement of the year. One was captured and one born during the year. Six died and one was sold thus leaving a balance of 17 elephants to the value of Rs. 58,000 at end of year.

76. *Other animals.*—There were 37 bulls and 40 buffaloes at the commencement of the year. Twenty-two bulls and 17 buffaloes were purchased during the year at a cost of Rs. 4,599. Six bulls and 3 buffaloes were sold, 2 bulls and 1 buffalo died and 1 bull and 3 buffaloes were destroyed. The number remained at end of the year was 50 bulls and 50 buffaloes, their aggregate value being Rs. 9,671.

(7) *Veterinary Establishment.*

77. The live-stock in *South Coimbatore* was in charge of a Veterinary Assistant and was inspected once by the Inspector of Live-stock during the year.

(8) *Civil Suits.*

78. The decree obtained last year in the Kollegal District Munsif's Court against the avaram bark contractor for the recovery of Rs. 108-10-0 could not be executed during the year as the defendant resides in the Mysore State. Petition for the transfer of the decree to the District Munsif's Court, Mysore, has since been filed.

In *Madura* the suit filed against one Alagiriswami Chetti for the encroachment of 10 acres of land in the Sirumalai North-West slopes reserve referred to in the previous year's report, is still pending.

(9) *Control of unreserved lands by the Forest Department.*

79. The department has no control over unreserved lands in the Circle except over the sandalwood working circles in *Kollegal* and *also over an area of 866.8* acres of unreserves, included in the Bargur sandalwood working circle and exploited for bamboos along with the Tamarakarai bamboo working circle.

H. F. A. WOOD,
Conservator of Forests,
Fifth Circle.

COIMBATORE,
30*th August* 1924.

APPENDIX.

SUMMARY OF PROGRESS DURING THE FIVE YEARS 1919-20 TO 1923-24.

1. In G.O. No. 91, Revenue (Special), dated 18th July 1921, it was ordered that the Forest Administration Report should be compiled since 1920-21 for the official year ending 31st March, instead of for the forest year ending 30th June.

2. *Administration.*—The following officers held charge of this Circle during the period under review :—

Mr. H Tireman	...	From 12th July 1919 to 29th April 1920.
Mr. C. E. C. Fischer	...	From 30th April 1920 to 19th December 1920.
Mr. H. F. A. Wood	...	From 20th December 1920 to date.

3. *Changes in the Controlling Charges.*—In February 1921 the Presidency was divided into six Circles and accordingly the two Forest divisions of Madura and Tinnevelly *cum* Ramnad were added on to this (old Western) Fifth Circle, while the two Forest divisions in South Kanara, two in Malabar and *The Nilgiris* division with the major portion of the old *Central Coimbatore* division, were transferred to the Sixth Circle.

4. *Organization.*—The pay of the officers of the Imperial Forest Service was improved with effect from 30th April 1921, and those of the Provincial Service from 1st January 1922. The re-organization of the executive and protective staff—increasing their number and raising the scale of pay—was sanctioned with effect from 1st October 1919. The pay of the clerical service also was revised with effect from 1st March 1921.

5. *Changes in Area.*—The area of reserved forests and lands under the control of the Forest department, at the commencement of the quinquennium in the divisions now comprising this Circle, was 3,190 square miles, and the area at the close was 3,251. The increase was due to the addition, to *North Coimbatore* division, of the Mettupalayam range in the old *Central Coimbatore* division transferred to VI Circle, and also to the additions made during the period after final settlement.

6. *Froest Settlement.*—The following statement shows the details about the forest settlement:—

In hand at the commencement of the quinquennium period.	Newly taken in hand during the period.	Total.	Finally settled during the period	Balance.
SQUIRE MILES. 2·218	SQUIRE MILES. 0 647	SQUIRE MILES. 2·865	SQUIRE MILES. 2·509	SQUIRE MILES. ·356

Of the 2.509 square miles finally settled during the period the reservation of .001 square mile was to take effect from 1st July 1924.

7. *Demarcation.*—The total length of artificially marked boundaries at the close of 1923-24 was 2,881 miles, as compared with 2,985 miles at the commencement of the quinquennium, the decrease being due to disforestation of reserves in *Madura* and *Tinnevelly*. The length of boundaries still to be demarcated at the close of the period was 532 miles.

8. *Forest Surveys.*—A party of the Survey of India party was at work in *South Coimbatore* during 1920-21, making 1-in. maps of the hilly tracts of Udamalpet range, and the map was published in 1922-23 on a scale of 1½ in. to a mile. In *Madura* the Ampthill Downs reserve of Kodaikanal range was surveyed by the Survey of India party during 1920-21, and the resurvey of the reserved forests in Cumbum, Palni and Sholavandan ranges was also done in 1921-22.

9. *Working Plans.*—The total area under sanctioned working plans and schemes, at the close of the quinquennium, was 1,433 square miles against 1,090 square miles at its commencement. The increase is due to the temporary schemes sanctioned for the extraction of agricultural implements and small timber, and also the dead and spiked sandal trees, in *Kollegal* and *North Coimbatore*. The revised working plan drawn up for Tinnevelly forests of 287 square miles in extent, excluding the shola and reed forests of Kodamady and Kannikatty ranges, drawn up by the District Forest Officer, was returned for further revision; but this was temporarily approved for working for a period of three years.

Area for which working plans have still to be prepared is 409 square miles; and that for which working plans are not at present required, as there is no possibility of working the forests concerned for some years, is 1,358 square miles.

10. *Communications and Buildings.*—The average annual expenditure on communications, buildings and other works amounted to Rs. 92,372 during the period under review. Owing

to the changes in the controlling charges referred to in paragraph 3 supra no comparison can be made with the average of the previous five years. There was, however, increase in expenditure on communications during the latter half of the quinquennium under review, due to the construction of the new Mount Stuart Ghat Road in *South Coimbatore*, sanctioned by Government in 1921-22.

11. *Forest Offences.*—The average annual number of forest offences during the quinquennium under review was 4,249.

12. *Fire Protection.*—During the quinquennium period under review the average annual area under systematic protection was 427 square miles. The percentage of failure was 4.6 per cent.

13. *Protection from Cattle.*—The whole forest area is closed to goats. The average area annually opened to grazing of all animals except goats was 2,321 square miles during the quinquennium period under review, and the area open to all animals, except sheep and goats, 218 square miles, i.e., 71 per cent and 7 per cent, respectively, of the total area. The average number of animals permitted to graze in the quinquennium under review was 254,088.

14. *Yield and Outturn.*—The total outturn of the forest during the quinquennium under review is as shown below:—

	In thousands of cubic feet.
Timber	3,179
Fuel	16,386
Total ...	19,565

15. *Financial Results.*—The gross revenue for the period under review was Rs. 58,37,154, and the expenditure Rs. 35,16,502, leaving a surplus of Rs. 23,20,652. No comparison with the previous five years' figures is possible for the reasons stated in paragraph 10 supra.

16. *Forest Education.*—During the period under review there were three sessions of the Vernacular Training School held in 1920, 1920-21 and 1923-24 in three different divisions, with satisfactory results. In all, 83 Foresters and Forest Guards were deputed for training, and 79 of them obtained certificates.

Fourteen students returned from the Madras Forest College after training during the period, three obtaining Honours, 10 Higher Standard and one Lower Standard, certificates.

COIMBATORE,

9th September 1924.

H. F. A. WOOD,
Conservator of Forests,
Fifth Circle.

ANNUAL ADMINISTRATION REPORT OF THE FOREST DEPARTMENT

FOR THE

YEAR ENDING 31ST MARCH 1924

SIXTH CIRCLE.

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

1. ALTERATION IN AREA.

(1) *Reserved Forests.*

The total area of reserved forests in the circle was reduced during the year from 1,846 square miles to 1,844 square miles.

The following were the main changes during the year:—

In *The Nilgiris*, an area of 107 acres was added to Kalhatti reserve.

In *North Mangalore*, Chambugudde reserve—an isolated reserve of 74 acres in extent—was disafforested and, in the *Palghat* division, a part of Chennimalai reserve, 85 acres in extent, which had been leased to the London Mission Society for a long time, was disafforested; 627 acres of Bolampatti Block I in the *Palghat* division was also disafforested.

(2) *Reserved Lands.*

The area under this head, with the exception of 109 acres transferred to reserved forests in *The Nilgiris*, remained unaltered.

2. FOREST SETTLEMENT.

The areas under settlement were confined to the *Nilgiri* division.

Two small areas—one of 108.53 acres, additions to Kalhatti reserved forest, and another of 0,50 acre, an enclosure—were finally notified during the year.

The settlement of 74.7 square miles representing the Mudumalai forests, referred to in the last year's report, was completed, but the draft notification, being very defective, was under revision in this office

3. Demarcation.

The only original work carried out was the demarcation for two miles of part of Tirunelli reserve in the *Wynaad* division.

The usual reclearing of boundaries was carried out in *North* and *South Mangalore* and in parts of *Wynaad*, *The Nilgiris* and *Palghat* divisions. In *Nilambur*, reclearing of lines was undertaken during the fire-protection operations.

4. Forest Surveys.

The Mysore-Malabar political boundary in Begur range was verified by the Revenue Survey Party No. VIII and completed. In addition, the boundary lines of some reserves were surveyed by the party and the question of reconciliation between the section 16 notifications and the surveyed line is under correspondence.

The survey of coupes, plantations, roads, etc., was carried out by the subordinates.

Reference maps were maintained in all divisions.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. Regulation of Management.

Preparation and Control of Working Plans.

The scheme for working the fuel areas in Coondapur and Shankeranarayana ranges of the *North Mangalore* division, comprising an area of 25 square miles, referred to in the last report, was approved of by the Chief Conservator of Forests.

In the *North Mangalore* division, a scheme for the extraction of catechu trees in the reserves and unreserves is under preparation.

An officer was posted to the *Wynaad* division for reconnaissance work, but after a short time was withdrawn for district charge.

In the *Nilgiri* division, a scheme for the conversion of the Coonoor Acacia working circle was prepared by the District Forest Officer and submitted to the Chief Conservator of Forests.

In the *Palghat* division, a preliminary report was drawn up by the District Forest Officer for the revision of the working plan for the Walayar forests, but here again change of officers has resulted in the work not yet being completed.

The prescriptions of existing working plans and schemes were generally followed; but work is to a great extent being conducted without any definite or considered plan, and it is much to be hoped that officers may shortly be available for the all-important work of preparing working plans.

2. Communications and Buildings.

Roads and Bridges.

The expenditure on new works and repairs were Rs. 11,444 and Rs. 15,229, respectively. The amount spent on new works mainly represent the metalling of five miles of the Chedleth-Sultan's Battery Road and the construction of inspection paths in the *Palghat* division, to a length of about 25 miles, in the Attapadi and Silent Valleys. The amount spent on repairs represent the maintenance of 377 miles of roads, bridle and inspection paths.

Buildings.

The expenditure on new works amounted to Rs. 33,583 and that on repairs Rs. 9,023. The important works were—

(1) *North Mangalore division.*

Part construction of range office at Karkal, extension of Range officer's quarters at Coondapur, Mudabidri, Shankeranarayana and Karkal.	3,323
Construction of subordinates' quarters at Nellikar, Kodiamale, Nire, Jedkal, Shirur, Vasrahole and Siddapur.	4,805

(2) *South Mangalore division.*

Forester's quarters at Parappa, Range officer's inspection rest-houses at Parappa and Padnur.	3,431
[The floods in August 1923 destroyed the range office at Uppinangadi (it is being rebuilt on another site) and did other minor damage.]	

(3) *Wynaad division.*

Construction of forest guard's quarters at Boothakkal and Muthanga.	966

(4) *Nilambur division.*

The completion of the reconstruction of the range office, Nilambur, ceiling of District Forest officer's bungalow, part reconstruction of Nilambur Range officer's quarters, District Forest office, Amarampalam Range officer's quarters and range office, etc.	7,231
Acquisition of the site for the circuit house, Nilambur ...	1,750
[In this division a great deal remains to be done on reconstruction and on the provision of quarters for the subordinate staff.]	

(5) *The Nilgiri division.*

Construction of subordinates' lines at Kargudi ...	2,730

(6) *Palghat division.*

Construction of inspection bungalows at Walghat, Aruvamparai, and completion of the range office at Mannarghat.	4,005

Miscellaneous Other Works.

Nearly Rs. 1,000 was spent in the *North Mangalore* division on wells for subordinates' quarters.

The sanctioned improvements to the Paishwani river (*South Mangalore*) have been completed in April 1924 at a total cost of Rs. 35,378. The section of the river improved is seven miles and the transport of timber from the Parappa forests to Kasaragod has been much facilitated.

In the same division the question of improving the Netravati river for floating purposes awaits investigation by the Chief Forest Engineer.

Improvements to the Kumaradhari river—six miles—to facilitate transport of fuel by water from the Narimogar reserve in the Puttur range to Mangalore, were undertaken towards the close of the year, and have since been completed at a cost of Rs. 752: boats are now for the first time being used for transport and this development cannot fail to react upon the revenue.

3. Protection of Forests.

(*a*) *General Protection.*

The total number of forest offences reported during the year under review is compared below with that of the previous year:—

Cases.	Fire.		Felling.		Grazing.		Other offences.		Total.	
	1922–23.	1923–24.	1922–23.	1923–24.	1922–23.	1923–24.	1922–23.	1923–24.	1922–23.	1923–24.
A. (taken to Court) ..	17	34	119	145	28	37	48	36	212	252
B. (compounded) ..	53	68	1,140	986	288	272	129	109	1,610	1,435
C. (undetected) ..	116	95	9	1	..	..	..	4	125	100
Total ..	186	197	1,268	1,132	316	309	177	149	1,947	1,787

There is a fall, by 8 per cent, in the total number of offences reported, the decrease occurring under all classes except that of injury by fire, in which there is an increase chiefly in *South Mangalore*, due, so it is stated, to the burning of unreserves for kumri cultivation. Taking the figures by divisions, *North Mangalore* shows an increase of 100, cheifly under unauthorized felling in unreserved lands; *South Mangalore*, a decrease of 230 from unreserves, set off by a small increase of 11 in reserves—it would hardly appear that the decrease in reported cases from unreserves is due to the number of offences reported and the compounding

fees levied last year, for the District Forest Officer states that traces of large scale timber thefts have been observed in the unreserves of the Kasaragod taluk where investigation for further reservation is proceeding, and the indifference of the local village officials has been brought to the Collector's notice; *Palghat*, a decrease of 135 cases, equally in reserves and unreserves; the former is attributed to the offences in panchayat areas (these, in fact, amount to very few) being dealt with by the special staff, while no reason has been furnished in respect of the latter.

Protection in the Mannarghat range of the *Palghat* division was very defective and it was necessary to punish a Ranger on account of continued and extensive thefts of timber in an area which was known to be particularly exposed to this form of danger. These forests march with private jungles, the accessible timber of which has long since been removed. Lessees employ contractors, who in their turn sublet, and no questions are asked as to whether any timber exists on the land leased or where the timber produced actually comes from. But after the commotion made last year it is hoped that there will be improvement and better protection, and this will be so for as long as the District Forest Officer exercises continued vigilance.

Cases brought to trial during the year were 226, of which 170 were convicted and 56 were acquitted, the percentage of conviction being 75 against 86.6 in the previous year.

The decrease in the percentage of conviction was accountable chiefly in the *North Mangalore* division, where, out of 47 cases tried during the year, 29, or 62 per cent, ended in acquittal. It is explained that the acquittals related chiefly to cases of unauthorized fellings in unreserved lands.

The general percentage of conviction is in cases very low—either cases are prosecuted on insufficient enquiry, or the prosecutions are badly conducted. The particular attention of District Forest Officers has been drawn to this, so far as the matter relates to areas with which they are concerned.

The amount of compounding fees realized was Rs. 22,210 against Rs. 19,440 in the previous year. The increase occurred in all divisions except the Wynaad; in *North Mangalore* and *The Nilgiris*, the increase is due to the increase in the number of cases; in *South Mangalore*, it was apparently due to large compounding fees from unreserves on account of burning of unreserves for kumri cultivation; in *Nilambur*, it was due to increase in the offences under the Timber Transit Rules consequent on the increase in timber traffic after the rebellion;

and in *Palghat*, it was due to large compounding fees in offences from unreserves. The average compounding fees realized was Rs. 16.7 per case and Rs. 7½ per person.

Rewards.—A reward of Rs. 10 was sanctioned in *South Mangalore* to a Forester for detecting a case of illicit felling of sandalwood from kumaki land and a sum of Rs. 20 was paid from the funds of the Game Association to subordinates in *The Nilgiris*.

The recording, together, of offences in areas under the control of the Forest Department and in those which are not is not wholly satisfactory; it is difficult to obtain a true picture of the facts in the forests with which the department is principally concerned.

(*b*) *Protection from Fire.*

Special Protection.—The period dealt with is the calendar year 1923.

During the year, early burning operations were conducted in the ghaut forests of the *North Mangalore* division, in all the ranges of *South Mangalore* division, in practically the whole of the *Wynaad* division and in parts of the Mudumalai and Sigur ranges of the *Nilgiri* division. There were no fires in such areas in the *Wynaad* and *Nilgiri* divisions and practically none in the *North Mangalore* division (the area burnt in the division being four acres). About one square mile was burnt in the *South Mangalore* division. The success in *North* and *South Mangalore* is partly attributed to the favourable rainfall during the year.

In other parts of the Circle, the old system of protection continued.

2. The following report has been made by officers on the popularity or otherwise of the system of early burning:—

The North Mangalore division (Mr. Lasrado).—"The system of early burning is appreciated by some ryots near Golihole in Coondapoor range who take their cattle up at Koraticalbare and Meginavalley reserves for grazing; but nowhere else in the division do ryots take their cattle for grazing on the hills and the villagers on the whole are indifferent as to whether we do the early burning of grass on the ghaut forests or not."

The South Mangalore division (Mr. Madan).—"As reported last year, early burning causes some inconvenience to those ryots who do not collect thatching grass in time. But many sensible ryots like this system, as it produces fresh grazing grass with early showers, without their having to set fire clandestinely to achieve the same object. The ryots themselves burn grass in their kumakies during the hot weather and our having already burnt grassy

patches at edges of reserves is therefore of some help in reducing danger from fires accidentally escaping from kumakies to reserves."

The Wynaad division (Mr. Master).—"The system of early burning did not meet with any opposition from the adjoining population." [There is practically no grazing to consider.]

The Nilgiri division.—It is stated that so far as the Mudumalai range is concerned the question of popularity or otherwise of the early burning system does not arise, as there are no villages close by and there is not much grazing in the reserved forests.

As regards early burning in the Sigur range, there was a complaint from a large number of graziers that all the grass was being burnt by the department in the course of early burning operations. As a result of enquiry it was ordered in January 1924 that early burning should not be carried out in the plains portions of Sigur, Bokhapuram, Singara and Kalhalai reserves and in Avarahalla reserve.

3. The area over which protection was attempted was 1,132 square miles against 1,056 in the previous year; the increase was chiefly in the *Nilambur* division due to the inclusion of the New Amarampalam reserve under special protection operations. The area successfully protected was 99.9 per cent, the area burnt being only 804 acres. The cost of protection was Rs. 15 per square mile (for all areas under special protection, early burning as well as the old method); the cost of early burning varied from Rs. 4 to Rs. 7 per square mile, while the lowest rate for protection under the line clearing system was Rs. 23½ per square mile.

General Protection.—The area under general protection was 495,983 acres, of which 892 acres were reported to have been burnt: the correctness of this latter figure is more than doubtful.

(c) *Protection against Cattle.*

The area closed to grazing increased from 343 to 346 square miles (against 1,950 square miles of reserved forests and reserved lands in the Circle). The whole of the forests in the *Nilambur* division continued to be closed to grazing. Of the total area of reserved forests and reserved lands, 69 per cent was open to the grazing of all animals except browsers. There has been an increase of a little over 5 per cent in the number of cattle authorized to graze, the number during the year being 142,964 against 135,831 in the previous year. The *Nilgiri* division shows an increase of 9 per cent: this means that the amount of illicit grazing is being reduced.

The grazing incidents was—

North Mangalore	14·6	acres per cow unit.
South Mangalore	13·5	„ „
Wynaad	18·0	„ „
Palghat	7·4	„ „

The grazing incidence in *the Nilgiris* has not been worked out for want of proper data and it is impossible, in any division, to arrive at a figure representing the facts. Of all areas open to grazing, much is never used at all, while much is heavily overgrazed.

Owing to drought the reserves in the Bolampatti range of the *Palghat* division, lying in the Coimbatore district, were thrown open to free grazing by the Collector in February 1924.

The number of cattle impounded during the year was 2,602 against 3,709 in the previous year. The decrease was in all divisions except *North Mangalore.*

(d) Protection against Injuries from Natural Causes.

In *South Mangalore* division, in Jalsur East, an insect, identified as *Sphacrotrypes* by Dehra Dun, was found to be the cause of the death of *Hopea* seedlings.

Specimens of a caterpillar, said to damage teak seedlings and nursery plants in the *Wynaad,* have been sent to Dehra Dun for identification.

Defoliators of teak continued to do damage in *Nilambur,* separate attacks being observed in May, June and October. Experience shows that what was considered to be one attack in the past may be two, or even three. The Forest Entomologist visited *Nilambur* in January 1924 and systematic investigation by one of his assistants has been started in the current year. Such an investigation must take time, it being first necessary to determine the precise amount of increment lost (this will apparently entail control trees and the artificial defoliation of others) when the estimated cost of preventive measures, if any are found possible, must be compared with the assessed value of the loss in wood.

Elephants do considerable damage in the young teak plantations at *Nilambur;* but it is observed that they seem to avoid fully stocked plantations, and the damage they do is repaired by cutting back. Similarly in the *Wynaad,* bison and elephants are a source of trouble, while in the Mudumalai regeneration area Sambur and deer do a good deal of damage by trampling on the seedlings.

CHAPTER III.—SYLVICULTURE.

I. Formation and Regeneration of Forests.

(i) *General Progress of Areas under Regeneration.*

In the *South Mangalore* division, *Hopea* sowings were carried out over an area of 336 acres. In *North Mangalore* an area of 535 acres was prepared for *Hopea* regeneration. In the *Nilambur* division, planting of teak was undertaken over 154 acres and sowing over 18 acres as an experimental measure. In the *Wynaad*, dibbling of teak seed was undertaken over 61 acres and stump planting over 9 acres; also *Hopea* sowings were done over 129 acres. In the Chenat Nair forests (Palghat) regeneration work of various kinds was done over scattered areas amounting in all to about 125 acres. In *the Nilgiris*, preparation (burning a clear-felled area, pitting and so on) for the regeneration of 100 acres in the deciduous forests in Mudumalai was undertaken, and a nursery was formed in the Sigur range for the raising of teak, ultimately to be stumped and used for the regeneration of 22 acres to be clear-felled in 1924-25.

(ii) *Establishment of Reproduction under Working Plans or Schemes* [*form* 75 (*a*)].

(*a*) *Mainly natural.*—Nil.

(*b*) *Mainly artificial.*—In *Nilambur* 49 acres of original teak plantation on which the final fellings had been conducted were regenerated: 28 acres were planted with teak in the usual way. The result of planting is not too good as has before been observed is the case with re-planting old plantation areas. The young plantation also suffered from floods in August and heavy rains. This bad weather was succeeded by a very hot season and the replacement of casualties was difficult due to lack of seedlings in the nursery. Sowing was undertaken over 21 acres partly at 6 ft. by 6 ft. and partly at 12 ft. by 12 ft. espacement as an experiment. The results were not satisfactory. The cost of regeneration was Rs. 52-9-0 per acre.

In the conversion working circle (after the clear felling of natuarl forest) 51 acres in Kanakutha was planted with teak 6 ft. by 6 ft. at a cost of Rs. 36-8-0 per acre. Unfortunately the area was full of bamboo regeneration which it will take a great deal of trouble to prevent interfering with the teak. Another area of 75 acres was regenerated—the planting of teak 6 ft. by 6 ft —

and three acres, being wet and unsuited for teak, were sown with *Lagerstroemia Flos-Reginae* and *Terminalia tomentosa*. The cost was Rs. 53-8-0 per acre.

(*c*) *Afforestation.*—Nil.

(iii) *Plantations and other Forms of Regeneration not under Working Plans or Schemes.*

North Mangalore division.—An area of 535 acres in Halesomeshwar reserve was prepared for sowing of *Hopea*.

South Mangalore.—In Parappa reserve over an area of 334 acres, the exploitable timber on which had been extracted in 1922-23, *Hopea* seed was sown, the cost being Rs. 2-14-0 per acre. The espacement adopted was 19 ft. by 19 ft., each pit being 1 ft. diameter and 10 in. deep and ten seeds being sown in each pit. Casualties were estimated to be 25 per cent at the end of the hot weather. Sowing (in prepared patches) of deciduous species—*Terminalia tomentosa, Pterocarpus marsupium* and Rosewood—was undertaken over 32 acres of a clear felled timber and fuel coupe in Nerankimale reserve at a cost of Rs. 98-8-0, or Rs. 3-1-0 per acre. Germination at the beginning was good, but at the end of the hot weather only some 10 per cent of the plants survived.

In the *Wynaad*—no definite scheme has been prepared—clear fellings in natural mixed deciduous forest are undertaken and these areas are re-stocked in various ways, the best of which has not yet been determined. An area of forty acres was clear-felled and 26 acres were dibbled with teak seeds 6 ft. by 6 ft., two acres with *Terminalia tomentosa* and three acres with Rosewood and *Pterocarpus marsupium*. An area of nine acres was planted with teak stumps $1\frac{1}{2}$ years old, 12 ft. by 12 ft., at a cost of nearly Rs. 12 per acre.

In the Chedleth range, about forty acres were clear-felled and 35 acres dibbled with teak seed 6 ft. by 6 ft., the perimeter of the area being dibbled with Rosewood and *Pterocarpus marsupium*.

One hundred and twenty-nine acres in Kannoth reserve was undersown with *Hopea* seed in prepared patches at a cost of Rs. 3-14-0 per acre in May 1923. In March 1924 the casualties amounted to 20 per cent only.

An area of seventeen acres, which had been subject to shifting cultivation (at Nadutiana in the Wynaad), was cleared, burnt and planted with teak stumps at a cost of Rs. 13-4-0 per acre. This was the most successful area of the year in the Wynaad.

Chenat Nair forests.—Regeneration works were carried out as detailed below at a total cost of Rs. 2,967. The results were not on the whole satisfactory. The North-east Monsoon failed entirely and there were very few showers during the hot weather.

The area was divided into different classes and different treatment was accorded for each such area.

A plot of fifteen acres in deciduous forests.—*Terminalia tomentosa* seeds were sown in prepared pits 6 ft. by 6 ft. Germination was good, but trouble was caused by seedlings being washed away from pits. Pits were subsequently ringed with stones. Survivals after the hot weather amounted to about 41 per cent.

A plot of seven acres.—Blanks along drag-paths were lined and sown with *Terminalia tomentosa* seed. Germination was bad and the result unsatisfactory, work done with a second supply of this seed being more successful.

A plot of 37 acres in the Dhoni valley.—This area had been felled already and regeneration works carried out in 1920-21, 1921-22 and 1922-23. The result of the previous operations amounted to nothing but 1,017 Mahogany seedlings surviving.

Xylia xylocarpa was sown in May 1923 and *Terminalia tomentosa* in June 1923. Germination of *Xylia* was good and that of *Terminalia tomentosa* poor—here again the seed was bad. Blank pits, where the latter species had been sown, were re-sown in August 1923, but germination was again poor. *Xylia* seedlings damped off during the rains. The result was a failure.

A plot of eighteen acres on the Sappal ridge.—Stump planting of *Aini*, *Hopea* and *Vateria Indica* was done. *Hopea* and *Vateria* failed, but *Aini* showed 16 per cent survival.

Ridge area eighteen acres.—*Vateria* stumps were planted 12 ft. by 9 ft. over nine acres. The result was unsuccessful. *Xylia* and *Hopea* were sown over the rest of the area. Germination of both species was good, but the seedlings of the former damped off during rains and those of the latter died of drought.

A plot of 9·57 acres.—Sown with *Aini* and *Hopea*. Germination was good, but many of the seedlings died of drought. Survivals at the end of the hot weather amounted to 8.6 and 14.6 per cent respectively.

A plot of sixteen acres.—This area was first sown with *Terminalia tomentosa* 12 ft. by 9 ft. in May 1923 and again in June 1923 with *Aini* 15 ft. by 15 ft. Germination of *Aini* was fair, but that of *Terminalia tomentosa* poor. At the end of the hot weather, survivals of *Aini* ranged from 5 to 8 per cent and those of *Terminalia tomentosa* 3 to 6 per cent.

The Nilgiris.—Hardwood Eucalyptus plantation.—These, first commenced in 1912, were extended by planting the most promising of the nine species first tried, namely *Eucalyptus Eugenoides* and *Eucalyptus paniculata.*

Eucalyptus Eugenoides planting was continued on Doddabetta in the Ootacamund range. During the year, planting was done over an area of fifteen acres and casualties in the previous year's work were replaced. In Coonoor, casualties among *Eucalyptus paniculata* over an area of sixteen acres in the Black Bridge were replaced. The result was a failure, as the locality is not suitable.

Blanks in fuel compartments as they were felled over were replanted with *Eucalyptus globulus.* The yield from coppice is falling off in these compartments many of which have been felled four times; the question of replanting is therefore of importance.

Dibbling of sandal seeds, 20 ft. by 20 ft., was done at Kargudi over 26½ acres, the total area so treated to the end of the period being 109 acres. The percentage of success in the sowings of the year was 64 per cent. The total number of established seedlings in the whole area on 1st April 1924 was 3,160; cost of sowing during the year was Rs. 4 per acre, and the total expenditure incurred on the work to the end of the year being Rs. 1,757.

(iv) *Tending.*

In *North Mangalore,* areas sown with *Hopea parviflora* in Jatkatmale, Someshwar and Halesomeshwar reserves, 1,940 acres, were tended. In *South Mangalore,* similar areas in Jalsur East, Porkala and Padnur reserves were undertaken, the area treated being nearly 3,700 acres.

In the *Wynaad,* the tending and replacement of casualties were done in plantations over an area of 134 acres. Lantana was uprooted for a second time from eleven plantations in Begur and five in Chedleth ranges.

In *Nilambur,* all the plantations sown and planted during the year were weeded thrice, all casualties being replaced in the second weeding.

(v) *General.*

The best method of ensuring the regeneration of true evergreen remains undetermined; the intensity of the fellings required by methods of concentrated exploitation renders it most difficult to restore the original species at once; but it is found that, in Chenat Nair for example, there is often a considerable amount of mixed

natural regeneration on the ground and which will bear exposure. In such places, all that is required is to tend the young crop formed by the most valuable, at the expense of the worse, species, an operation which will be facilitated if a use can be found for the lop and top which makes access to these areas difficult. Where such regeneration does not exist, it would appear that it must be introduced artificially some time ahead of felling, and it is therefore important that a scheme of fellings be prepared. It has been shown by experiment that the removal of the overwood, even by the most aggressive means, does not result in appreciable damage to the regeneration.

The year 1924 was a bad teak-seed year, while the seeding of *Hopea parviflora* was also disappointing.

II. Tending Growing Stock.

In *South Mangalore*, improvement works were carried out in coupes I and II of Nalkur reserve. In coupe I, an area of 772 acres, where lines 4 feet wide and 16 feet apart had been cut and undergrowth and trees up to a height of 40 feet were felled and girdled, was gone over and the lines already cut were kept clear. Similar line-clearing work was carried out in coupe II over 725 acres at a cost of Rs. 1,086 or Rs. 1-8-0 per acre. The felling of trees was not undertaken, as it was thought it would be better to let in light more cautiously and gradually.

In the *Wynaad*, thinning was done in twelve old plantations—area about 250 acres.

In *Nilambur*, thinning was carried out over 604 acres of plantations. Thinnings are in arrears in some cases by one year due to the cessation of work caused by the recent Mappilla disturbances.

Climber cutting and removal of parasites were done in some of the plantations. The programme for this work, too, has fallen into arrears, but the lee-way is being made up. *Lantana* over 37 acres was also eradicated from Aravakode 1921 plantation.

In *the Nilgiris* the Benne teak plantation was thinned and various small plantations were cleared and tended.

Improvement Fellings.

North Mangalore.—Departmental felling of timber trees of and above 4½ feet girth, though carried out with the main object of securing revenue, has done a good deal towards improving the growth of young poles, which were suppressed by the more mature trees.

Similar work was done in the Parappa and Porkala forests of the *South Mangalore* division, the fellings being mainly for revenue and the sowing of *Hopea parviflora* in restoration of the crop being also in mind.

Dead and dying trees were cut in a part of Mavinhalla reserve (245 acres) and in Kannoth extension reserve (500 acres) all dead and dying trees of miscellaneous species were cut and removed by a contractor.

CHAPTER IV.—EXPLOITATION.

The control of the Chenat Nair Exploitation work was transferred to the Chief Forest Engineer in the middle of March 1924.

During the year fourteen consignments of timber of the species noted below, aggregating 11,327 c.ft., were despatched to Messrs. Howard Bros. and Co., London, for sale and for the British Empire Exhibition.

	Number.	C. ft.
For sale—		
Teak planks	678	817
Terminalia tomentosa logs	21	1,760
Dalbergia latifolia logs	40	924
For the British Empire Exhibition—		
Lagerstroemia Lanceolata	15	568
Cadrela toona	30	2,077
Ditto.	9	739
Pterocarpus marsupium	30	1,093
Mesua ferrea	30	1,144
Calophyllum tomentosum	20	2,062
Eugenia Gardneri	3	99
Hopea parviflora sleepers	9	28
Eugenia Gardneri planks	5	16
		11,327

In addition, six planks of *Lagerstroemia* (*Venteak*), *Cedrela* and *Pterocarpus marsupium* were despatched to the Forest Economist, Dehra Dun, and ten Venteak logs of 356 c.ft. were consigned to the Forest Utilization Officer, Madras, in connection with the Exhibition.

The Rosewood from *Wynaad* and the *Terminalia tomentosa* from *Nilambur* were noted by Messrs. Howard Bros. and Co. to be of excellent quality.

Timber from the *Wynaad* and *the Nilgiris* was, during the year, taken to Mysore and Nanjangud for sale. Comparatively better

prices have been obtained than by sales in the forest, or in intermediate depots. It is probable, too, that a rather worse class of timber, than was first transported from *the Nilgiris* in connection with this experiment, will prove to be saleable on rail.

(*a*) System of Management.

(i) *Major Forest Produce.*

The following sylvicultural systems were in force:—

Clear-felling.—One hundred and one acres in *South Mangalore* (for fuel as well as timber), 55 in *Wynaad* and 161 acres of natural forests in *Nilambur were* clear-felled during the year.

Final clear-fellings in teak plantations in *Nilambur* were carried out in 33 acres.

Selection method.—1,140 acres in *North Mangalore* and 312 in *South Mangalore* were worked under a system for which no other title is available. In practice, what is done is to remove saleable material to an extent which it is thought is most favourable to existing, or contemplated, regeneration of *Hopea parviflora.*

Improvement fellings.—Dead, dying and unsound teak over 245 acres in the *Wynaad* was marked for improvement fellings and sold standing, and 500 acres were similarly dealt with for extraction of dead and wind-fallen trees in the Kannoth range of the same division. In *the Nilgiris*, thinnings were carried out over an area of 129 acres for timber and fuel.

Simple coppice.—This was confined to fuel coupes in *North Mangalore*, *Palghat* and *the Nilgiris*, the area worked being 1,270 acres.

Coppice with standards.—Fuel coupes, aggregating 252 acres were worked under this system in *Palghat* and *South Mangalore*.

Unregulated fellings.—These were carried out chiefly in connection with the extraction of sandalwood in *North* and *South Manglore*, and *the Nilgris*, the outturn being about thirty tons.

(ii) *Minor Forest Produce.*

Bamboos.—The right to collect bamboos was leased out to contractors except in *Nilambur* and *South Mangalore*, where they were extracted departmentally for floating timber. There was also departmental extraction in *North* and *South Mangalore* in connection with flood measures.

Miscellaneous Produce.—Minor produce was collected departmentally only in the Mudumalai range of *the Nilgiris;* the right to remove it elsewhere in the Circle was sold to contractors.

Fodder grass continued to be leased out in parts of the *Palghat* division. Hay was not made anywhere in the Circle.

Grazing was, as usual, controlled by permits.

The revenue realized from areas under departmental mangement (i.e., other than those under panchayats) was Rs. 35,089, against Rs. 33,026 in the previous year. The increase chiefly occurred in *the Nilgiris*, where the number of cattle grazed on payment increased from 63,547 in 1922-23 to 69,465 in 1923-24.

(*b*) Agency of Exploitation.

(i) *Departmental Agency.*

With the exception of small quantities obtained from fuel fellings, the mass of the timber exploited was extracted by departmental agency, and this is the policy which will be followed in the future. There remain current during the year, however, certain old contracts for standing and other timber. Sandalwood was extracted departmentally in *the Nilgiris* and *South Kanara.*

The departmental felling of fuel was reverted to in the Nilgiri plantations; the profit obtained by this method has been shown to be greater than if the crops are sold standing, but lack of funds has resulted in the latter system being again resumed. The bamboos required for floating timber in *Nilambur* are felled departmentally. In connection with the flood relief measures, bamboos were felled departmentally in *North* and *South Mangalore* and supplied at cost price in relief of the people rendered homeless Bamboos felled in the *Wynaad* division were also utilized for a similar purpose.

(ii) *By Purchasers.*

Major Produce.—Standing timber in certain areas of the *Wynaad* division and fuel coupes in *North* and *South Mangalore* and *Palghat* were worked by contractors.

Minor Forest Produce.—The working of the bamboo coupes in *North Mangalore, Palghat* and *the Nilgiris*, and the collection of minor produce in all the divisions, except a part of *the Nilgiris*, were in the hands of contractors.

(iii) *and* (iv) *By Right-holders and Free-grantees.*

—	Timber in thousands of cubic feet.	Value.	Fuel in thousands of cubic fe	Value	Bamboos.		Grazing value.	Other Minor Forest Produce value.	Total value.
					Number.	Value.			
—		Rs.				Rs.	Rs.	Rs.	Rs.
Free-grantees ..	2	685	..	7	97,928	2,785	751	*644	4,872
Right-holders ..	27	10,221	..	..	..	..	..	..	10,221
Total ..	29	10,906	.	7	97,928	2,785	751	644	15,093

* Includes Rs. 625 being the value of metal removed by the Public Works Department and Local Fund Department for repairing roads.

(c) Outturn and sources of forest produce.

Agency of exploitation.	Timber in thousands of cubic feet.		Fuel in thousands of cubic feet.		Bamboos value.		Minor forest produce and grazing value.	
	1922-23.	1923-24.	1922-23.	1923-24.	1922-23.	1923-24.	1922-23.	1923-24.
					Rs.	Rs.	Rs.	Rs.
1. By Government agency.	595	544	641	732	13,291	34,073	2,598	1,536
2. By purchasers ..	634	375	3,714	3,451	6,730	17,780	65,048	64,941
3. By free-grantees.	5	1	..	..	12	2,785	1,313	1,395
4. By right-holders	9	27	..	..	..	..	..	..
Total ..	1,243	947	4,355	4,183	20,033	53,638	68,959	67,872

The Nilgirs is principally responsible for the decrease of timber exploited departmentally; large unsold stocks having accumulated, and the area clear felled already amounting to more than it could reasonably be hoped to regenerate in a year, further felling was suspended.

The apparent decrease in the quantity removed by purchasers is chiefly caused by the change in the factor of conversion for timber from unreserved lands in *North Mangalore* taken at three annas per cubic foot instead of one anna adopted in the previous year.

The increase in the quantity removed by right-holders is attributed to increased grants from kumaki lands in *South Kanara* on account of the floods; the quantities then might have been more appropriately shown under free grants. In any case, the "right-holder" item is never representative of actuals for no record is or can be, kept of what these kumakidars remove.

Bamboos.

By Government agency.—One lakh five thousand two hundred and forty-three bamboos were collected departmentally in *South Kanara* and were stored for sale at flood relief depots at convenient centres. This extra work, for which there was no organization at the outset, caused much additional strain on the establishment and was carried out at the expense of normal duties; some ordinary works had also to be deferred on this account, and the sacrifice of bamboos for the purpose referred to, at a time when, due to periodical flowering, the bamboo is not easy to come by, will shortly react on departmental operations in that floating will be impossible and the more expensive carting will have to be undertaken. The staffs of the two divisions were considerably pressed in this work and performed the task creditably and in good time. Happily the number of bamboos first indented for by the Revenue authorities proved to be an overestimate of what was actually required, the fact no doubt being that when the estimates of demand were framed it was supposed that the bamboos would be given free of collection and transport charges as well as of those on account of seigniorage.

By Free-grantees.—The amount shown against this item mostly sold in the previous year, were sold in the year under report, resulting in a revenue of Rs. 6,939.

By Free Grantees.—The amount shown against this item mostly represents the seigniorage fee on bamboos felled departmentally and supplied in connection with flood relief measures in *South Kanara*, the department recovering the bare cost of collection and delivery at the various depots.

Grazing.

The number of cattle admitted to graze on payment was 142,964 against 135,831 in the previous year. The increase was chiefly in *the Nilgiris.*

General.

The outturn in timber from reserved land, reserved and leased forests, exclusive of the *Chenat Nair Exploitation* division, increased from 700,000 c.ft. to 739,000 c.ft., of which Government agency was responsible for 544,000 c.ft. against 595,000 c.ft. in the previous year. Only 440,000 c.ft. was disposed of and the stock on hand at the end of the year exceeded the opening balance by 96,000 c.ft. The *Nilambur* division was very largely responsible for this increase, as, towards the end of the year, the prices offered in auction were so low as to be considered unfit for acceptance.

CHAPTER V.—FINANCIAL RESULTS.

The revenue and expenditure for the year are compared below with those of 1922-23 :—

	Rs. 1922-23.	Rs. 1923-24.
Revenue	8,29,383	8,48,190
Refunds	4,135	2,590
Net ...	8,25,248	8,45,600
Expenditure—		
B. Conservancy and works	4,57,985	4,34,981
C. Establishment	4,53,421	4,53,912
Total ...	9,11,406	8,88,893

The *Chenat Nair Exploitation* division is excluded from the figures of both years.

The expenditure shown includes the entire expenditure on account of the Forest Research Officer (Rs. 26,000) and of the Inspector of Livestock (Rs. 7,500) not fairly debitable to this Circle alone. The cost of the reconstruction of the Nilambur buildings, Rs. 7,200, is also included.

There was an increase in revenue from timber in *North Mangalore* (Rs. 15,000), the *Wynaad* (Rs. 8,000), and *Nilambur* (Rs. 64,000), and a decrease of Rs. 18,000 in *South Mangalore*. The revenue from sandal increased in the year by Rs. 7,000. There was also an increase of Rs. 27,000 from timber and fuel removed by consumers or purchasers (chiefly in the *North Mangalore* and *Palghat* divisions). Bamboo coupes in *Palghat*, sold in the year under report, account for an increase of Rs. 6,000; there was no such revenue in the previous year as bamboo coupes had been sold for three years at a time, the revenue being collected in advance. The increases detailed were partly set off by decreases of (i) Rs. 26,000 in *the Nilgiris* due to a change in the system of the sale of fuel (the amount will be made up in 1924-25), (ii) Rs. 4,000 in minor produce not sold in the *Nilambur* division for want of proper offers, and (iii) Rs. 70,000 on account of fewer elephants sold in the year and a decline in the prices fetched.

The value of timber at sale depots at the end of the year was Rs. 2,38,000, which exceeded the value of the stock held at the end of the previous year by Rs. 70,000. This is principally accounted for by stocks of about 10,000 c.ft. with Messrs. Howard Brothers and Co., London, and to large stocks at the Beypore depot, sales in the latter part of the year not having been confirmed on account of low prices offered. The value of timber

fell steadily, and, particularly in *Nilambur* and *South Mangalore*, it was difficult to effect sales. The stocks of teak held privately in Calicut are believed to be large, and until these are absorbed a recovery is unlikely. There is also the competition of Burma teak, which is placed on the market at a low figure, and it remains to be seen to what extent the sale of Nilambur teak to Arab traders will be effected by the placing in the Gulf of stocks of teak by Burma merchants. It is not suggested that it is not possible to sell Nilambur teak at a profit, but that profit is, for the moment, considerably less than it was. A development of the year was in transporting timber from the *Wynaad* and *the Nilgiris* for sale at Mysore and Nanjangud respectively. This is resulting in comparatively better prices being realized, but it is only the better class timber which will bear the long road lead. Some 50 per cent of the yield from the clear-felled areas, in the form of small sizes and inferior species, is left to be burnt in the forest. That much of this might profitably be converted *in situ* is probable, and the introduction of portable mills in these and other places is indicated.

The outstandings of revenue decreased from Rs. 2,31,956 to Rs. 1,22,210. The decrease was chiefly in the *Wynaad* and *Palghat* divisions due to remissions granted to timber contractors in the former and to the sale of fuel and bamboo coupes in April instead of in March in the previous year. Following the procedure adopted in Coorg and Mysore it has been necessary to grant remissions and to show other consideration on account of contracts, for the sale of timber in the forest, made when prices were high. Even so, the contractors have not all been able to act up to their obligations, and it is likely that some of these old contracts in the *Wynaad* will have to be cancelled, the department resuming the timber and exploiting it departmentally. The decrease in expenditure, under B. Conservancy and Works, was chiefly due to less expenditure on feed and keep of livestock, due to a smaller number of elephants maintained in the year. There was also a decrease in the expenditure on bamboo operations in *Nilambur*, purchase of stores, tools, and fire protection works in general. Against this there was an increase in expenditure on timber operations.

Of the revenue realized in the year, 80 per cent was from major produce, 6 per cent from minor produce, 4 per cent from grazing, and 10 per cent from other sources.

Of the expenditure, 50 per cent was on exploitation, 27 per cent on upkeep and improvement of forests, and 23 per cent on miscellaneous items.

The capital expenditure of the year may be placed at Rs. 45,000.

CHAPTER VI.—RESEARCH AND EXPERIMENTS.

Sylvicultural research work in the hands of a special officer attached to this Circle, and all the important experiments, are in his charge. There are observation areas in the *Palghat*, *Nilambur* and *South Mangalore* divisions in this Circle. A special report on the experiments conducted by the Research Officer is separately prepared and submitted to the Chief Conservator of Forests and to the Research Institute, Dehra Dun.

As usual, minor experiments were carried out by the District Forest Officers. Amongst these may be mentioned :—

Wynaad division.—The sowing of Daincha seeds (*Sesbania aculeata*) over six acres in a plantation where teak seeds were dibbled to see if the weed growth can thus be kept down. The result is reported to be unsuccessful owing to the bad quality of the seed, but it is probable that the sowing was undertaken too early. Similar work was also undertaken in *Nilambur* after the close of the year.

Nilambur division.—Some of the Rosewood trees in the division flower in August and September, while the majority of the trees flower during the period February to April. In order to ascertain the botanical difference, if any, in the two varieties, botanical specimens were sent to the Forest Botanist. His report is awaited.

Dendrocalamus Brandisii seed was sown in 1899 plantations, Amarampalam range, in patches twenty feet apart. The experiment was a failure due to late receipt of the seed and complete failure of the North-east Monsoon. In the regeneration area in Amarampalam range, an area of three acres was thought to be lowlying and not fit for teak. Half the area was sown with *Terminalia tomentosa* and half with *Lagerstroœmia Flos-Raginæ* at stake 6 ft. by 6 ft. The germination of the latter was excellent and of the *Terminalia* moderate, the former coming up in some cases under water. Casualties were numerous and were replaced by transplants. The *Terminalia* proved the more satisfactory on the whole, and the District Forest Officer considers it advisable to confine attention to this species for areas too wet for teak.

A series of experiments were conducted: (1) to study the effects of ploughing, instead of hand-weeding; (2) to compare the efficiency and cost of sowing instead of planting; (3) to study the effect of wider spacing; and (4) to study the effect of leaving an area fallow for a year before re-planting.

In regard to the ploughing experiment it seems probable that hand-weeding round the plants is also necessary and although, in November, the growth of the teak in the ploughed portion was not markedly better than that treated normally, in the second rains there appears to be a very marked improvement. Unfortunately, accurate records of cost were not maintained and the experiment is being repeated. The sowing was undertaken too late and this experiment too is being repeated.

As regards wide spacing, the experiment was only tried by sowing, and sown seedlings did not do as well as planted; the experiment is inconclusive. Weeding expenses are very much higher with wider spacing, both at the time of formation and in subsequent years. The Nilambur working plan shows that the cost of establishing a crop by sowing is higher, the growth poorer, and the period prior to realizing revenue prolonged; but it is possible that these conclusions apply to *Nilambur* alone.

Nilgiri Division.

What remain of the *Pinus Khasya*, planted in 1922, show excellent growth. The *Pinus merkusii* is not so promising.

The few seedlings of *Juniperus procera* and *Podocarpus*, planted out in Cairn Hill, are doing fairly well, as are those of seven species of *Quercus* put out in the Keti plantation.

A nursery of *Alnus Nepalensis* formed on the Kundhas in connection with experiments in reafforesting these high level areas has been most disappointing, the growth being extremely slow and comparing very unfavourably with that of the older in other nurseries on the plateau.

CHAPTER VII.—ADMINISTRATION.

During the year under report, the Forest Engineering Branch was organized and the control of the Chenat Nair Exploitation Unit was transferred to the control of the Chief Forest Engineer in March 1924. Towards the close of the year, sanction was received for the bifurcation of the Chedleth range in the *Wynaad* division into Chedleth and Sultan's Battery ranges and the formation of an additional range—Beltangadi—in the *South Mangalore* division. In the *Nilambur* division, Kariem and Muriem blocks were transferred from Amarampalam to Nilambur range as provided for in the working plan.

Tours.

The Inspector-General of Forests, who was on an inspection tour in Coorg, inspected the *Hopea* regeneration area in Jalsur

East reserve in the *South Mangalore* division. The Chief Conservator of Forests visited parts of the *South Mangalore, Wynaad, Nilambur, the Nilgiris,* and *Palghat* divisions.

The writer inspected the forests in the *North Mangalore, South Mangalore, the Wynaad, Nilambur* and *the Nilgiri* divisions and also the Chenat Nair and Walayar forests in the *Palghat* division.

The Sylviculturist, the Entomologist and the Pulp Expert of the Research Institute, Dehra Dun, and two officers from the Central Provinces visited the *Nilambur* division.

The touring of District Forest Officers in all divisions except *Nilambur* and *Palghat* fell short of the minimum required, chiefly owing to the inadequacy of the travelling allowance allotment.

Inspection of District Forest Offices and Range Offices.

All District Forest offices were inspected in the year. All range offices were inspected by District Forest Officers.

District Forest Officers' Accounts Inspection.

The accounts of all District Forest offices for 1922-23 were audited by the Local Audit Establishment and the results were reported to be generally satisfactory.

Vernacular Training School.

No school was held in the Circle.

Health of Establishment and Sanitation.

The health of the establishment was not satisfactory in the case of those working in the Ghaut forests of *North Mangalore,* in parts of *South Mangalore,* the *Wynaad, Palghat,* and the slopes of *the Nilgiris.*

Two guards, one plantation watcher, and two elephant-men died of fever; one forest guard died of smallpox and another of cholera.

In *South Mangalore,* by arrangement with the Collector and the District Board, the Sub-Assistnat Surgeon at Sullia periodically visits Elimale near Nalkur reserve, the most feverish place, where large scale works are in progress. A similar arrangement has since been made for the Mudumalai range and is in contemplation for the Begur and Chedleth ranges of the *Wynaad* division.

CHAPTER VIII.—GENERAL.

(i) *Formation and Management of Panchayats. (To include the Forest Village System).*

The panchayat system was in operation in the *North* and *South Mangalore* and *Palghat* divisions. The panchayats in *North* and *South Mangalore* are under the Forest Village System.

Of the nine panchayats in *North Mangalore*, two for the Mujimale and Panamberi reserves were dissolved during the year on account of extensive illicit fellings. These people are not really interested, for there still remain, in their neighbourhood, unreserves the growth on which has not yet been completely destroyed. Three panchayats in the Coondapoor taluk failed to renew their agreements, clamouring for added concessions. The privilege of the removal of litter—one of the concessions applied for—was granted, but even then they did not renew and have laid claim to what amounts to complete ownership of the forest. Recently, however, two of the panchayats have been induced to renew their agreements; but one, that for Kursegudde, declines to renew. The remaining four panchayats, in Mangalore, Udipi and Shankaranarayana ranges continued to manage the reserves in their charge satisfactorily. Towards the close of the year a new panchayat for Durgamale reserve in Udipi range was formed.

In South Mangalore the panchayats for the Bellare and a part of Porkala reserves were continued, and are reported to have worked satisfactorily.

In the *Palghat* division, the panchayats of Ettimadai, Madukkarai and Sundakamuthur, under the control of the Revenue Divisional Officer, the period of which expired on 31st December 1923, were extended up to 31st December 1926 by the Collector of Coimbatore. Their working is stated to have been indifferent.

The forest panchayats of the reserves in the Erode taluk were, with effect from 1st July 1923, transferred to the control of the Special Panchayat Officer. A special report on these was, at the instance of the Government, submitted by the Conservator after the close of the year.

(ii) *Measures for improving Local Supplies and Facilities.*

North and South Mangalore Divisions.—The most urgently pressed demand is for leaf manure. This was allowed to villagers under the management of panchayats and orders have been issued recently allowing the removal of leaf, both dry and green, as well as clearing of undergrowth in all reserves (except those near the

coast) to a distance of half-a-mile from the limits of private holdings and in the case of reserves near the coast to a distance of 200 yards from the limits of private holdings and clearing of undergrowth in all areas sown with *Hopea* and the free removal of dead fuel without the obligation to come under the Forest Village System.

In connection with the floods of August 1923 the department was called upon to supply bamboos in large quantities in *South Kanara*. Fortunately the demand first made, but on which the arrangements and organization for coping with it had to be framed, was subsequently considerably reduced, no doubt as a consequence of its becoming known that the cost of collection and transport would have to be paid by the grantees, but over 100,000 bamboos were supplied at various centres. Similar work was undertaken in the *Wynaad* for sale to the public at Tellicherry, the number of bamboos so sold being 18,500.

(iii) *Timber and Sandalwood Transit Rules.*

These rules are reported to have worked satisfactorily.

Consequent on the transfer of the Silent Valley forests from *Nilambur* to the *Palghat* division, the revision of the rules for the two divisions is necessary and proposals received from the District Forest Officers are under consideration.

(iv) *Jungle tribes.*

Wynaad Division.—In order to maintain a steady supply of labour, and to induce Kurumbers and others to live in the forest, small areas are given for temporary cultivation. A further advance was made in this direction during the year by a special loan of Rs. 270 sanctioned by the Government, free of interest, to eight Kurumbers for the purchase of cattle, in addition to assignment of three acres of land each for three years free of assessment.

Proposals for the opening of a school for Kurumber children were under consideration and sanctioned after the close of the year. The school was opened in Muthanga in June 1924 with forty pupils.

Palghat Division.—There are seven mulcer settlements in Mannarghat range, with a population of about sixty men, and some Irular settlements in Bolampatti range. The lands assigned to them are free of assessment and they are expected to supply labour to the department. One settlement which refused to supply labour in the Mannarghat range was evicted.

(v) *Mining and Quarrying.*

Nil.

(vi) *Livestock.*

(*a*) *Elephants.*—There were 87 elephants at the beginning of the year, 18 were captured during the year, 9 were born, making a total of 114. Of these, 9 died and 22 were sold leaving 83 at the close of the year, valued at Rs. 2,74,650.

Rs. 31,255 was realized by the sale of elephants during the year. The prices realized were not as good as usual, and it is probable that the market has been overstocked.

(*b*) *Other animals.*—There were 25 bullocks and 44 buffaloes at the beginning of the year, and 12 buffaloes were transferred from Chenat Nair. Of these, 4 buffaloes and 1 bullock were sold, 4 buffaloes died and 3 buffaloes and 2 bullocks were destroyed, leaving a stock of 22 bullocks and 45 buffaloes valued at Rs. 6,444.

(vii) *Veterinary Establishment.*

The Veterinary Assistant in Nilambur was in charge of the livestock in that division and the Veterinary Assistant at Gudalur was in charge of the animals of *the Nilgiris* and the *Wynaad* divisions. The work of both these subordinates was supervised by the Inspector of Livestock. Arrangements were made, in consultation with the Civil Veterinary department, to regulate, and to improve, the work of these officers.

(viii) *Civil Suits.*

North Mangalore.—The institution of a suit to recover the loss of Rs. 1,701, on account of the re-sale of nux vomica lease, was sanctioned during the year by the Government.

South Mangalore.—The appeal in the High Court, referred to in the last report, is still pending. The suit filed by a timber merchant, and referred to in the last report, is stated to have been decided against the Government.

The Wynaad.—The suit against contractor Venkatarama Shetty for the recovery of Rs. 5,656 was decided in favour of Government in the District Court, Mysore, but an appeal is stated to have been preferred to the Chief Court.

Nilambur.—The civil suit in respect of the boundary of Kariem and Muriem blocks ended in favour of the Tirumalpad, Nilambur.

Statement showing sanctions for works exceeding Rs. 5,000 accorded under the powers delegated in G.O. No. 1755, Development, dated 17th September 1921.

Name of work.	Total cost.	Expenditure incurred in the year.	Remarks showing how the cost was met—portion met from the budget allotment—portion met from other sources.
Construction of Range Officer's quarters at Pulleyil (Amarambalam range), Nilambur division.	Rs. 5,200	Rs. 800	Met from the budget allotment for 1923-24.

R. D. RICHMOND,
Conservator of Forests,
VI Circle.

OOTACAMUND
5th September 1924.

APPENDIX.

SUMMARY OF PROGRESS DURING THE FIVE YEARS 1919-20 TO 1923-24.

The Circle was formed on 4th February 1921 with headquarters at Ootacamund, and consisted, at that time, of the following divisional charges :—

(1) North Mangalore.
(2) South Mangalore.
(3) The Nilgiris.
(4) Nilambur.
(5) Palghat.
(6) Wynaad.

The last three, corresponding to the old South Malabar, North Malabar and Central Coimbatore districts, respectively, except for the transfer of Mettupalayam range to the *North Coimbatore* division of the Fifth Circle, and of the transfer of the Mannarghat range from *Nilambur* to *Palghat*.

A special officer was placed in charge of sylvicultural research work in the Presidency in 1919 and is attached to the Circle.

The intensive exploitation of the Chenat Nair evergreen forests in Malabar was organized in 1921 and was separated from the *Palghat* division, in which they lie, and formed into a separate unit under a special officer, with engineering qualifications, in 1922. The control of this unit passed to the Chief Forest Engineer towards the close of the quinquennium.

The Erode range in the *Palghat* division was abolished in 1921 and the formation of two additional ranges, one in *South Mangalore* and another in the *Wynaad*, was sanctioned towards the close of the period.

The work in the *Nilambur* division was completely disorganized in 1921 as a result of the Mappilla disturbance in August of that year. If any confirmation were required of the necessity for weeding and tending young plantations at that time of the year, it is to be found in the condition of the plantations which had of necessity to be neglected for the cause named. There can never be complete recovery and the money loss must be considerable. Also the thinning and final felling programme fell into arrears and the leeway is not yet made up. Other losses, incurred as a result of the rebellion, were through the burning of most of the buildings belonging to the department.

The special "Forest Year", July-June, was abolished in 1920-21 and the administration reports from 1921-22 correspond to the official year.

2. *Administration.*—Messrs. H. Tireman and R. D. Richmond held charge of the circle except for short intervals when Messrs. Whitehead and Wimbush acted.

3. *Area.*—The area at the commencement and close of the period are given below: —

	Beginning of 1919-20.	Close of 1923-24.
	Sq. miles.	Sq. miles.
Reserved forests	2,032	1,844
Reserved lands	104	106
Total ...	2,136	1,950

The decrease in the area under reserved forests is chiefly accounted for by the transfer of the Mettupalayam range to the Fifth Circle.

4. *Forest Settlement.*—The area shown at the end of the quinquennium, which is practically the same as at the beginning, has been finally settled, with the exception of nineteen square miles of leased forests in *Nilambur* and five square miles of Todapatta lands in *the Nilgiris;* but the issue of the notification under section 16 was pending revision of the draft notification prepared by the Forest Settlement Officer.

5. *Demarcation.*—The total length of artificially demarcated boundaries at the close of the period was 5,442 miles against 5,845 miles at the beginning, the decrease being chiefly due to the transfer of the reserves of the Mettupalayam range to the Fifth Circle. Fifty-nine miles of original demarcation work were carried out during the period.

The Mysore-South Kanara boundary was settled by a commission and finally demarcated during the period.

6. *Working Plans.*—The only important working plan prepared and approved during the period was that for the Nilambur Valley Forests by Mr. R. Bourne. The area under sanctioned working plans at the commencement of the period was 1,251 square miles, but that at the end of the period was 365 square miles. The decrease represents the area of sanctioned working plans in *North Mangalore, South Mangalore* and *Wynaad* divisions which have become obsolete and have been cancelled. One of the most pressing needs of the moment is working plans, and it is to be hoped that an increased staff will shortly allow of officers being provided for this all-important work.

7. *Communications and buildings.*—The average annual expenditure on communications, and buildings and on other works was about Rs. 88,000. During the period large outlay was incurred on the construction of buildings and roads and on the formation of the Sappal station in connexion with the exploitation of Chenat Nair forests. A sum of Rs. 26,000 was spent on reconstruction of

buildings destroyed or damaged by rebels in the *Nilambur* division, but these works are not yet completed.

8. *Forest offences.*—The average annual number of offences reported during the period was 1,778 against about 2,000, the average for the previous quinquennium.

9. *Fire protection.*—The principal feature of the period under this head was the introduction of the early burning system in four out of the six districts in the circle. It is reported to be successful and there is no opposition to it from graziers except in one place. The area under special protection increased from 796 square miles at the beginning of the period to 1,132 square miles at the end. The result in 1923-24, the last period of the quinquennium, was very good, the percentage of success being 99.9. But it is perhaps a little early to pronounce on the success or otherwise of this new method of protection.

10. *Protection from cattle.*—The whole forest area was closed to goats. No grazing is allowed in one of the districts—*Nilambur.* An area of 57 square miles in the *Wynaad,* previously closed to grazing, was opened in 1921-22, no harm being anticipated in a part of the country where cattle are few in number.

Of the area of 1,950 square miles of reserved forests and lands at the end of the period, 1,341 square miles were open to grazing of all animals, except goats, and 263 square miles to all animals, except goats and sheep, the percentage of area so opened being 69 and 13, respectively, of the total area.

Except in a few localities the necessity for affording facilities for grazing in the circle is of little importance.

11. *Yield and outturn.*—Efforts to arrive at a fair comparison between the outturn in the previous period and the one covered by this report are of little use, due to changes in the allocation of the areas when the circle was formed.

It is obvious, without resource to figures, however, that departmental timber operations have developed considerably, and in the last year of the period the outturn by this agency amounted to 544,000 c.ft., or, taking into consideration all timber removed from reserved forests, leased forests and reserved lands, by whatever agency, to 739,000 c.ft., or 276 c.ft., per acre only. One of the principal features of the period under review has been the development of exploitation, principally through departmental agency. In this direction a good deal remains to be done, but the start has been made and the principal requirement for further development is the preparation of working plans, the evolution of schemes of extraction, the development of markets and the organization of better utilization, for which special agencies are being

brought into being. The slump in timber prices of recent years is becoming an adverse factor, but this decline may not be an altogether unmixed evil, provided that the department is able to sell at a small profit all that it is able to exploit. The country imports timber and articles made of wood to an exceedingly high gross value and there seems little reason why it should not be self-supporting in this direction.

12. *Financial results.*—Here again no comparison is possible for the reasons explained in the previous paragraph, and any attempted comparison is vitiated by the fact that direction expenditure cannot be debited to the previous quinquennium. It must suffice to say that the average net annual revenue of the period was about Rs. 45,000, but even this gives an incorrect picture of the present position for the reason that directly after the war the price of timber rose unprecedently, while since 1920 it has fallen steadily. In the year 1923-24 a deficit of Rs. 43,293 appears; but here again this hardly discloses the true state of affairs for work is in the stage of development and no differentiation is made between capital and ordinary expenditure. During the period the scales of pay of the lower ranks were very largely increased.

13. Another notable feature of the period under review has been the extension of measures of regeneration and a complete revision of the old systems of working. Broadly speaking, it may be said that the so-called selection and improvement felling methods in deciduous forests are dead, their place being taken by clear felling and concentrated regeneration; while it has been amply demonstrated, over considerable areas in South Kanara, that it is possible to introduce, at small cost, so valuable a species as *Hopea parviflora* under an existing mixed crop of less value than that which will ultimately take its place.

The problem of how to be sure of regenerating the true evergreen type in which the development of intensive exploitation must principally take place is not solved; research in such matters is necessarily slow, but sufficient has been done to show that it may not be so difficult as was at one time supposed.

14. The quinquennium may be summed up briefly as one of highly-important progress and development, particularly in respect of what may be called a sylvicultural revival. The work done hitherto is not, for reasons already given, yet reflected in increased profits, but these will come and the prinicpal and imperative need of the moment is the preparation of working plans.

OOTACAMUND,
28*th September* 1924.

R. D. RICHMOND,
Conservator of Forests,
Sixth Circle.

ADMINISTRATION REPORT OF THE MADRAS FOREST COLLEGE, COIMBATORE, FOR THE PERIOD FROM 1ST APRIL 1923 TO 31ST MARCH 1924.

CHAPTER I.

CONSTITUTION.

Staff.

Principal.—Mr. C. C. Wilson held charge from 1st April 1923 to 5th August 1923 and Mr. W. G. Dyson succeeded him for the remainder of the year.

Instructors.—The posts of Senior and Junior Instructors were held as follows :—

Name of officer.	Period.
Senior Instructors.	
Mr. G. C. Robinson ...	From 1st April to 4th May 1923.
„ W. G. Dyson ...	From 5th May to 5th August 1923.
„ C. R. F. Williams	From 6th August 1923 to 31st March 1924. (Also attached to the College from 1st to 5th August 1923.)
„ W. C. Hart ...	From 1st April to 31st July 1923.
„ H. P. Ward ...	From 1st August 1923 to 15th February 1924.
„ J. E. M. Mitchell.	From 16th February to 31st March 1924.
Junior Instructors.	
„ E. K. Krishnan ...	From 1st April to 31st July 1923.
„ A. R. Brand ...	Throughout the year.
„ C. M. Kushalappa.	From 1st August 1923 to 31st March 1924.

Sub-Assistant Surgeons.—Messrs. A. Gopala Nambiar and B. Krishna Shenoi were attached to the College during the camping periods as Medical Officers and they delivered occasional lectures in First Aid and Camp Hygiene. First Aid lectures were delivered in headquarters to the students of the Senior Division by the Medical Officer in charge of the Lawley Road Dispensary.

All students were instructed in Physical training, gymnastics and drill by the College Havildars under the supervision of Mr. Williams.

Board of Visitors.—Mr. H. Tireman, I.F.S., acting Chief Conservator of Forests, was Ex officio President of the Board of visitors during the year under report.

The following officers were members of the Board during the year :—

Name of officers.	Period.
Mr. A. Wimbush ...	From 1st April to 3rd November 1923.
„ H. A. Latham ...	From 4th November 1923 to 31st March 1924.
„ H. F. A. Wood ...	Throughout the year.
„ C. E. C. Fischer...	From 1st April to 10th October 1923.
„ R. D. Richmond...	Throughout the year.
„ H. C. Bennett ...	From 1st April 1923 to 15th March 1924.
„ D. T. Barry ...	From 19th November 1923 to 31st March 1924.
„ T. A. Whitehead...	Throughout the year.
„ T. Clear ...	From 16th to 31st March 1924.

CHAPTER II.

INSTRUCTION

1921–23 *Division.*—The Final Examination of the 1921–23 Division was held in June 1923. Twenty-nine students appeared for the examination of which 10 were awarded Honours Certificates, 14 Higher Standard Certificates and 5 Lower Standard Certificates. The percentage of Honours and also of Higher Standard Certificates was much above that of normal years.

The following list shows the certificates awarded in order of merit :—

Rank.	Name of student.	Name of Circle, State or Province to which attached.
	Madras Ranger Honours.	
1	S. Sankaran	Third Circle.
2	K. Shankaranarayana Rao	Sixth „
3	C. Thiruvengadam Pillai	Fifth „
4	I. Z. Robert Paul	Fourth „
5	K. S. Thimmayya	Coorg.
6	A. Surya Rao Nayudu	First Circle.
7	T. Venkatasubbiah	Third „
8	P. Kuttappan Pillai	Third „
9	S. Dorairaja Pillai	Private student.
10	P. A. Venkatraman	Fifth Circle.

Rank.	Name of student.	Name of Circle, State or Province to which attached.
	Madras Ranger High Standard.	
11.	N. Ayyanna	Second Circle.
12.	J. S. Vedanayakam	Fourth ,,
13.	P. Madhavan Nair	Sixth ,,
14.	V. Sundaresan	First ,,
15.	P. T. Jayakodi	Ceylon.
16.	Biram Singh	Central Provinces.
17.	Gurucharan Singh	Do.
18.	Saiyid Hadi Husain	Do.
19.	Prithichand	Do.
20.	Anil Kumar Bose	Bihar and Orissa.
21.	Chakradhar Behera	Do.
22.	Amos Demta	Do.
23.	Muhammad Rahmatullah Khan	Hyderabad.
24.	Brajo Kishore Joshi	Patna.
	Madras Ranger Lower Standard.	
25.	A. R. Samarawickrama	Ceylon.
26.	Patras Kandir	Bihar and Orissa.
27.	Muhammad Taiyab Khan Nizami	Rewa
28.	Mumtaz Husain	,,
29.	K. Appukuttan Vellodi	Court of Wards.

The Government and other Prizes were awarded as follows :—

(1) Best Second year student (Gold Medal). S. Sankaran.

(2) The Campbell-Walker Prize for the best all-round Ranger—S. Sankaran.

(3) The Brasier Prize for the best out-door Ranger—Saiyid Hadi Husain.

(4) The Lodge Prize for the best Second year student in Forest Engineering—S. Sankaran.

(5) The Madras Conservators' Prize for the best Second year student in Forestry—C. Thiruvengudam Pillai.

(6) The "Indian Forester" Prize for the best essay by past students—M.R.Ry. C. Balaya Nayudu, Range officer, Kodur Range.

(7) The "Indian Forester" Prize for the best essay by present students—K. Puspa Rajalingam, Junior student.

(8) The Pentland Shield for the best Athlete in the College —Saiyid Hadi Husain.

(9) The Fischer Challenge Cup for the best tennis player in the College—Saiyid Hadi Husain.

(10) The Chief Conservator's Prize for the best student in the Junior Division—K. Pushpa Rajalingam, a student of outstanding ability.

Messrs. T. Clear, E. M. Crothers, S. V. Devadasan, W. G. Dyson, M.C., W. C. Hart, R. B. Cornwell, H. A. Irwin, M.C., and F. D. Ardagh conducted the Final Examinations in June 1923. The Examiners' reports were, on the whole, satisfactory. There was, however, a falling off in the subject of Engineering as compared with previous year.

1922-24 *Division.*—The 1922-24 Division, the present Senior year, have shown the usual improvements under strict discipline and regular work in the field and class room.

Of the 27 students of this Division who began the course, one, a private student, left the College at his own request as he found himself unable to follow the course.

The Final Examination in Physical Science was held in June 1923 with satisfactory results.

First Aid Examination.—The students were examined in First Aid at the end of March 1924 by a Medical Officer of the Government Hospital, Coimbatore. All 26 students of this Division gained the Saint John's Ambulance Certificates for proficiency.

1923-25 *Division.*—The 1923-25 Division, the present Juniors' have not as yet shown much promise. Twenty-seven students began the course, but a private student, who had been exempted from payment of tuition fees, left at his own request in September 1923, as he found that he could not meet the other expenses. Four of the remaining 26 are Madras Government students.

2. *Periodical Examinations.*—The Periodical Examinations held during the year show that the students of the last two divisions are making satisfactory progress.

3. *Practical Training in Headquarters.*—Saturday mornings were as usual spent in practical work on the estate. The Demonstration Forest afforded an opportunity for applying Sylvicultural and Utilization principles; and a certain amount of practical Engineering was also carried out, more particularly Survey, in the estate.

The following work was done in the Demonstration Forest:—

(1) Broadcast sowing of Cassia Auriculata in coupes 5 and 6. Germination good, but practically non-existent at the time of writing this report.

(2) Basket planting of sandal seedlings with a host plant (Albizzia lebbek) in coupes 5, 10-20.

Result satisfactory

(3) Albizzia lebbek and Melia indica were planted in coupes 4 and 5, but a large proportion died.

(4) Felling of coupe 4 and sale of fuel obtained.

4. *Prize giving.*—On 30th June 1923 the usual Annual Prize giving was held at the College and in the unavoidable absence of His Excellency the Governor, the Hon'ble Mr. Graham, Member of Council, presided. Mrs. Tireman very kindly presented the Prizes and Certificates.

The usual Garden Party in the College grounds followed.

CHAPTER III.

ADMINISTRATION, TOURING, HEALTH AND CONDUCT.

Administration.

Board of Visitors' meeting.—The Board of Visitors met at the College on the 27th June 1923 and discussed various points of administration of the College, chief among them were :—

(1) *Revision of the system of marking.*—In accordance with the resolution of the previous year's meeting the Principal submitted proposals for an alteration in the system of marking, by which practical work is awarded a greater number of marks. Government has since sanctioned this scheme and it has been introduced from 1st August 1924.

(2) *Abolition of the distinction between the Higher and Lower Standard Certificates at the Forest College, Coimbatore.*—Government ordered that with effect from 1st June 1925 both students obtaining Higher Standard Certificates and those obtaining Lower Standard Certificates should be appointed as Rangers on the same pay, i.e., Rs. 80—but that the latter should not become eligible for promotion for one year. This means that holders of a Lower Standard Certificate will be placed on the graded list immediately below the Higher Standard students of the following year and that no subsequent distinction will be made between the two classes in the matter of promotion.

(3) *Cost of education.*—As shown by the figures given in Statement No. I appended to this report, the actual net cost of the College to Government this year has been Rs. 63,562 against Rs. 75,048 of the previous year.

As there were only eight Madras Government students under training during this period, this makes the cost of education per student Rs. 7,945. In preceding year the cost per student was only Rs. 4,690 as there were 16 Madras Government students during that period. In addition, the stipends and travelling allowance of the Madras Government students has been debited to the College in the present period.

Touring.—The camping during the year under review has been in accordance with the sanctioned programme.

The programme of tours and works carried out by the students are given below :—

1921–1923—*Division.*

April and May 1923, *Arambyshola.*—During this camp the students enumerated the stock in Block I of Snowden and Cairn Hill reserves and prepared a working scheme for the supply of fuel from these areas to Governor's House.

They aligned a road in Mutinad and did several botanical and engineering excursions. Here the Final Survey Examination was held as usual.

1922–1924—*Division.*

April and May 1923, *Bandyshola, Coonoor.*—The students of the 1922-1924 division at this camp studied the construction of charcoal kilns and manufactured charcoal themselves. They enumerated the crop in the Experimental Hardwood Plantations at Keti and took part in various Engineering and Sylvicultural excursions.

September and October 1923, *Komattiyeri.*—The division camped as usual at Komattiyeri where they studied mainly sandalwood protection, growth and extraction and road construction.

The students were also able to see the Forest Village system in operation.

November and December 1923, *Nilambur and Nedu gayam.*—During these months the division toured in the South Malabar district. On their way the students visited Kallai and inspected the Standard Furniture Company and Saw Mills. At Nilambur and Nedungayam they saw teak plantations from the young stage to the mature tree and learnt a great deal about the sylviculture of that important tree. They studied the principles of thinnings in the forest and carried out marking themselves.

In Engineering they aligned a road along the river from the ferry to the camp site and studied the conditions of rafting and floating of timber. Here they met evergreen jungle for the first time and consequently learnt a number of new important species.

January and February 1924, *Dhoni.*—While the interest of the Nilambur camp was mainly sylvicultural, the students found Dhoni Camp intensely interesting from the engineering point of view. Here up-to-date methods of extraction by mechanical means and slides were studied in detail under the guidance of the Exploitation Officer.

The Logging Engineer very kindly demonstrated his method of rapid but accurate forest survey by means of the Trailer Tape, and by its means they mapped a large area of very rough ground, over which area felling is now taking place.

The students found this experience of intensive working extremely valuable.

Nor was Dhoni devoid of sylvicultural interest. The ever present problem of regeneration was gone into with the District Forest Officer who accompanied the students on many excursions, and later the same problem was discussed with the Forest Research Officer, who also took the students over his experimental plots.

We are very grateful indeed to all these officers who went out of their way to teach the students so many valuable things in this camp, and to make our time there a period of real practical interest.

1923–25 *Division.*

September and October 1923—*Sadivayal.*—The new juniors camped as usual at Sadivayal in September and October where they were taught the ground work of forestry in the field.

November and December 1923—*Topslip.*—During these months the Junior division camped in Tunacadavu Range where they saw timber extraction operations, and studied the teak plantations. Their instruction in practical botany was continued, and they carried out various enumerations.

January and February 1924—*Kargudi.*—This period was spent at Kargudi in the Nilgiris. Here they received practical instruction in fire protection, road alignment, botany and engineering.

Tour journals.—A record of all work done in camp is kept in the form of tour journals. In addition to the maintenance of these journals the District Forest Officers are informed of the details of any work carried out by the students which, it is considered, will be of use or interest to the district.

District officials.—The very warm thanks of the College are due to the officials of the districts visited, who so kindly not only did all in their power to make our camps comfortable, but went out of their way to show us all that is of interest in the locality. Although busy, they always had time to spare for instruction of the students, and the students learnt a great deal from them. While this was the case every where, Dhoni must be specially mentioned for the amount of time that was devoted to us by the various officers.

Inspections by Membrs of the Board of Visitors.—The students were inspected in camp in the Nilgiris by the Chief Conservator of Forests and the Conservator of Forests, VI circle.

While the senior division was at Komattiyeri the Conservator of Forests, IV Circle, spent two days with us.

4. *Swimming.*—During the Nilambur and Kargudi camps the students of the both divisions respectively were taught to swim.

1923-24 *Division.*

The students were tested at Nedungayam and 13 passed—swimming good, 10 swam moderately. 3 failed.

5. *Health.*—The general health of the students at headquarters and in camp has been on the whole satisfactory. One student T. R. Bushanam in practising hurdles broke his leg and was away for some time, but rejoined and gained a higher standard certificate

6. *Conduct and discipline.*—The discipline at the College was, during the year, satisfactory. No cases of severe breach of discipline were encountered, and the conduct of the students was good.

CHAPTER IV.

THE GASS FOREST MUSEUM; COLLEGE AND STUDENTS' LIBRARIES.

1. *Museum.*—Mr. G. Viswanatha Ayyar, B.A., the Curator, was in charge of the Museum throughout the year.

It is noted with pleasure that valuable contributions to the Museum continue to come in, and it is hoped that it may receive continued support from forest officers.

During the year, thirty photos of timber trees, and fifty maps showing the distribution of timber species were exhibited by the side of the timber panels. For the benefit of the College students in particular, select botanical specimens were exhibited in glazed frames, showing types of genera and natural orders of forest importance. Floral diagrams and short botanical notes were embodied in these exhibits, so as to enhance their instructional value.

About sixty interesting exhibits were sent from the Gass Museum to the British Empire Exhibition.

That the Museum continues to be interesting and instructive is evident from the fact that the number of visitors during the year rose from 22,269 in the previous year, to 22,934.

The Curator continues to do every useful work in demonstrating in both botany and utilization.

2. *General Library.*—Including periodicals 317 books were added to the general library.

3. *Students' Library.*—This was transferred during the year to the direct control of the students at Students' Club.

CHAPTER V.

SUPERVISION, WATER-SUPPLY, ROADS, BUILDINGS, ETC.

1. *Supervision.*—During the year under report Mr. K. A. Bhandary, the permanent overseer was transferred to the Central Provinces as a Forest Ranger.

Mr. A. Marudachallam Pillai the permanent store-keeper, has been appointed to act as Overseer. He has been energetic and his work has been good.

2. *Water-supply.*—The new pump recently set up still is not working satisfactorily, and was out of action three times during the year, which of course necessitated the running of the old engine. The old plant has therefore as yet not been thoroughly overhauled.

3. *Roads.*—The relay of roads around the Museum was not taken up during the year for want of funds.

All the existing roads have been kept in repair.

4. *Buildings.*—Necessary repairs to the hostels and other buildings under the control of the Principal were executed during the year.

The following semi-permanent sheds were constructed during he year : —

Name of building.	Amount sanctioned.	Amount spent in round sum.	Remarks.
	RS.	RS.	
1. Construction of camp sheds at Nedungayam.	590	580	Completed.
2. Construction of instructors' sheds at Nedungayam	297	297	Do.
3. Construction of camp sheds at Nilambur.	570	570	Do.
4. Construction of camp sheds at Komattiyeri for Havildars Sub-Assistant Surgeon and sweepers.	195	193	Do.
5. Construction of kitchen sheds at Bandyshola.	1,040	1,040	Do.

During the year Rs. 80 was spent in digging a well at Nilambur.

5. *Athletic ground.*—During the year Rs. 751 was spent for repair of tennis court and hockey and football grounds.

CHAPTER VI.

GENERAL.

1. *Stock-taking.*—The stock of the College was checked in detail in July 1923 by the staff of the College, and the articles missing or unserviceable were written off under proper sanction.

2. *Athletics.*—The Annual Athletic Sports were held on the 6th November 1923 ; the College record for the long jump was materially increased by M. M. Rahim who cleared 17 feet 9 inches, the previous record being 17 feet 4½ inches.

This student also won the Richmond Cup with ease, obtaining 23 points, while the runner-up, Khan Muhammad, only made 14.

The College, thanks to the presence of Mr. Ward, won the local Cricket Tournament for the second time.

The inter-divisional football match on 2nd June 1923 was won by the juniors (1922–24 division) after a most exciting game. The Cowley Brown Challenge Cup for the inter-divisional hockey match was won by the 1921–23 division after a very even game.

The Marathon race was won by D. J. Tanpure of the 1923–25 division, who did the six odd miles in almost the same time as last year—38 minutes 12 seconds—and thereby carried off the cup presented by M.R.Ry. K. Rama Raja Mannarghat Moopil Nayar Avargal. A cup as second prize was also awarded to Muhammad Kassim who did the distance in 38 minutes 47 seconds.

The Inter-divisional Challenge Cup presented by the late Risaldar Major Amir Muhammad Khan Sahib for this race was easily won by the 1923–25 division.

The Pentland Shield for the best all-round athlete in the College, awarded in June 1923, was won by Syed Hadi Hussain.

The post of Vice-Presidentship of the Athletic Club was held by the following officers during the year under report :—

Name of officer.	Period held.
Mr. G. C. Robinson	From 1st April to 4th May 1923.
„ W. G. Dyson	From 5th May to 5th August 1923.
„ H. P. Ward	From 6th August 1923 to 15th February 1924.
„ J. E. M. Mitchell	From 16th February to 31st March 1924.

COIMBATORE,
25th August 1924.

C. R. F. WILLIAMS,
Principal, Madras Forest College, Coimbatore.

APPENDIX I.

Statement No. I.—Statement of revenue and expenditure of the Madras Forest College for 1923-24 (April 1923 to March 1924).

	Head of service.	Amount. RS.
Revenue—		
I (*a*)	Timber	147
(*b*)	Firewood and charcoal	120
(*e*)	Grass and other minor produce	(*a*) 23
V (*a*)	Fines and forfeitures	2
(*b*)	Other sources	62,277
	Total	62,569
	Deduct refunds	31
	Net revenue	62,538
Expenditure—		
	B.—Conservancy and Works.	
VI (*c*)	Stores, tools and plant	3,713
VII (*a*)	Roads and bridges	2,747
(*b*)	Buildings	(*b*) 10,785
(*c*)	Other works	1,100
VIII (*e*)	Sowing and planting	3,349
IX (*c*)	Other charges	1,043
	Total	22,737
	C.—Establishment and Contingencies.	
I (*b*)	Pay of superior officers appointed by the Secretary of State	36,873
II	Pay of officers appointed in India	23,632
III (*a*)	Subordinate forest and depot establishment	(*c*) 10,417
(*b*)	Office establishment	8,731
IV (*a*) (2)	Travelling allowance of superior officers	7,646
(3)	Do. subordinate forest and depot establishment	(*c*) 4,691
(4)	Do. office establishment	1,809
(*b*) (1)	Fixed travelling allowance	-22
(*c*)	Honoraria	800
	Deputation and other allowances	59
V (*b*) (1)	Rates and taxes	11
(2)	Pay of menials, where non-contract	2,537
(4)	Other contingencies	8,500
	Total	1,05,728
	Total expenditure, B and C	1,28,465

(*a*) Realized by sale of permits for removal of fodder grass from the College estate. The sum should have been credited to II (*d*).

(*b*) Includes Rs. 5,460 spent by the District Forest Officer, Nilgiris.

(*c*) As per final figures for March 1924 received from the Accountant-General on the 21st instant Rs. 109 has been transferred from C-IV (*a*) 3 to C-III-(*a*).

Deduct—

		Rs.	Rs.
(1) Net revenue		62,538	
(2) Expenditure on Museum as follows :—			
	Rs.		
Pay of Curator	1,243		
Pay of two Museum watchers and sundry other expenses.	1,122		
		2,365	
			64,903
Net cost of College ...			63,562

Statemnent No. II—Madras Forest College, Coimbatore, 1923–25 division

Serial number and name of student.	Circle or State to which attached.
1. A. Subrahmanyam	I Circle.
2. A. Arogiaswami	II Circle.
3. T. S. Sankaran	III Circle.
4. S. Narayanaswami	V Circle.
5. M. Manickam	Ceylon
6. S. Ilayaperuma	Do.
7. L. J. V. Perera	Do.
8. S. Sabastian	Do.
9. R. D. Philips	Do.
10. S. S. Harisinghani	Bombay.
11. K. G. Krushi	Do.
12. A. J. Andrade	Do.
13. Benjamin John	Do.
14. O. P. Mathews	Do.
15. D. J. Tanpure	Do.
16. Muhammad Kassim	Do.
17. R. Ramaswami	Do.
18. D. D. Rawat	Central Provinces.
19. Ramjidass	Do.
20. S. R. Bali	Do.
21. Khan Muhammad	Do.
22. G. M. Ayade	Do.
23. J. Chakravarthi	Do.
24. Muhammad Abdus Sathar ...	Bihar and Orissa.
25. B. K. Banarji	Do.
26. B. J. Dwivedy	Keonjhar State.

APPENDIX II.

Abstract showing the live-stock, stores, tools, etc., in the Madras Forest College, Coimbatore, for the year ending 31st March 1924.

Description of stock.	On hand at the commencement of the year.		On hand at the end of the year.		Difference in value in favour of the year.	Difference in value against the year.
	Number.	Amount.	Number.	Amount.		
		Rs. A. P.		Rs. A. P.		Rs. A. P.
Survey and other instruments.	2,144	6,493 9 5	1,830	5,707 2 9	..	* 786 6 8
Tools	998	1,575 1 4	874	1,184 1 4	..	† 391 0 0
Furniture	1,655	22,785 1 5	1,699	22,013 14 3	‡ ..	771 3 2
Tents	79	6,330 12 0	79	1,854 8 0	..	4,476 4 0
Uniforms	84	352 10 2	65	163 10 4	..	§ 188 15 10
Scientific apparatus ..	1,361	409 0 9	1,371	320 1 2	..	88 15 7
Photographic apparatus.	20	344 0 1	19	302 3 1	..	41 13 1
Gymnasium	9	345 3 2	9	326 2 4	..	19 0 10
Machinery (oil-engine, etc.).	2	2,328 6 0	2	2,208 11 6	..	119 10 6
Miscellaneous articles..	1,538	2,529 12 5	1,143	2,079 14 7	..	449 13 10
Total ..	7,890	43,493 8 10	7,091	36,160 5 4	..	7,333 3 6

* Of this stores value Rs. 338-13-0 were transferred to saleable stock.

† Under this head an oil-engine, book value, Rs. 357-6-5, was sold during the year for Rs. 500. Articles, value Rs. 185, were purchased during the year.

‡ Rupees 104-1-3, value of camp boxes made in the College, included.

§ Rupees 165-14-0, value of lothes issued.

A REVIEW OF THE WORK DONE BY THE FOREST ENGINEERING BRANCH UP TO MARCH 1924.

INTRODUCTORY NOTE BY THE CHIEF CONSERVATOR OF FORESTS, MADRAS.

In 1922 a pamphlet entitled "A selection of papers relating to Forest Exploitation in the Madras Presidency" was published for the information of the members of the Legislative Council. A "Foreword" written by His Excellency the Governor in which he stressed the importance of forest exploitation from the point of view of the expansion of the revenues of the Presidency was followed by an "Introductory note" which briefly reviewed the history of the Forest Department and showed how attention had in the past been concentrated on the forests which supply the requirements of the local villagers to the detriment of the more valuable timber forests with the result that the war found the department helpless to do anything to meet the enormous demands for timber which then arose. A short account was then given of some of the assets in the shape of valuable forests which the State possesses, and stress was laid on the need for considerable expenditure if the best use were to be made of these assets. It was stated that the Government recognized the importance of obtaining the best available skilled advice, and that they regarded this as essential to success. At the end of the pamphlet was printed a note drawn up for the Forest and Finance Committees of the Legislative Council in which it was proposed that negotiations should be opened with Mr. C. S. Martin, then Consulting Forest Engineer to the Government of India, with a view to secure his services to direct forest exploitation in this Presidency.

2. In due course the Legislative Council approved of the proposal to engage Mr. Martin as Chief Forest Engineer for a period of three years. The Council's approval was also obtained to the creation of a special branch of the Forest Department which should be called the "Forest Engineering Branch" and be under the control of the Chief Forest Engineer. This branch was to take charge of all works connected with the extraction of timber which involved special difficulty or called for special engineering skill, as well as all the more important engineering operations of the Forest Department; it was also to deal with the "utilization" or the disposal of the timber extracted, and for this purpose a new post of "Forest Utilization Officer" was sanctioned. In connexion with the extraction of timber a temporary post of "Logging Engineer" was created, and it was decided to obtain for this post an expert in American logging methods who should assist the Chief Forest Engineer in the actual work in the field.

3. Mr. Martin arrived in Madras early in October 1923 bringing with him as Logging Engineer Mr. J. Kenneth Pearce. He has written the following report dealing with the work on which he has been engaged up to the end of March 1924. This report speaks for itself and fully bears out the opinion expressed by Government in 1922 that skilled advice was essential to success; without Mr. Martin the department could make no advance in any exploitation work demanding technical engineering skill which the ordinary forest officer (whose training is chiefly concerned with growing

rather than with exploiting forests) does not possess. This is very clearly shown in the reduction already effected in the cost of extracting timber from the Chenat Nair forests.

4. A beginning has been made, and there is good reason to hope that under Mr. Martin's guidance the valuable timber forests of this Presidency may be turned to good account and may not only render the Presidency independent of extraneous supplies of timber but also yield a considerable financial return.

REPORT FROM C. S. MARTIN, ESQ., CHIEF FOREST ENGINEER, MADRAS, CAMP No. 1/24, OOTACAMUND, DATED 23RD MAY 1924.

I think it may prove desirable to present to you a brief review of the organization and accomplishment of the Forest Engineering Branch during the last six months of 1923–24.

2. The Chief Forest Engineer reached Madras on October 6th. The remainder of this month was spent in getting the office organized, in inspecting the work going on at Chenat Nair, and in preparing a report to Government as to the desirability of accepting Rao Bahadur Namberumal Chetti's offer giving Government the use of his Trichur Saw Mill for a period of three years.

3. November was spent in inspecting the work of the Forest Engineer at Mount Stuart, in reorganizing the work at Chenat Nair, and in further organization and office work in Madras.

4. During December the Forest Utilization Officer was appointed and the organization of his office and work was undertaken. A scheme was presented to Government for the establishment of a box-making plant and saw mill at Olavakkot, South Malabar.

5. January was spent in an inspection of the evergreen forests of South Kanara, an examination of the Beypore depot near Calicut and of various engineering problems in the Wynaad; a trip was taken to Coorg to advise the Government of that province as to their exploitation and engineering work and to confer with the representatives of the Railway Board as to the supply of sleepers to the railways from Southern India.

6. February was spent in a trip to Cochin and the Papanasam reserved forests in company with Mr. Raitt, Officer in charge of the Paper Pulp Section, Forest Research Institute, Dehra Dun, in order to investigate the manufacture of matches from reeds and the possibilities of establishing a larger paper pulp and woodworking industry in the latter forest.

7. March was spent in trips to Coimbatore, Chenat Nair and Mount Stuart in connexion with work under way at these places and in general organization and reorganization.

8. In order to summarize the work accomplished, I think it will perhaps be better to take up separately the various activities under the control of the Forest Engineering Branch.

I. (1) *Chenat Nair.*—This operation was found in the most discouraging situation faced in its brief and chequered history. Markets had fallen off, the staff and labour had been so badly hit by fever that all work had been

shut down for two months, the work was more or less disorganized, the machinery beginning to give trouble and every one was more or less discouraged.

The results accomplished here may best be shown by the production and cost figures for the six months under review.

The whole plan of work was reorganized under Mr. Pearce, the Logging Engineer, the operation was mapped, enumerations of the timber were made, and Government was asked to sanction a scheme of increased pay for the staff, based on outturn. The figures follow :—

Month, 1923.	Production, cubic feet.	Book cost per cubic foot.
		RS. A. P.
October	2,607	4 14 1
November	4,179	3 2 1
December	6,984	2 1 9
January	4,309	2 13 3
February	12,459	1 11 8
March	16,088	1 6 3

This improvement is continuing and, with a revision of the book-keeping methods as advised by Messrs. Fraser & Ross, Chartered Accountants to Government, we expect to reach our budgeted figures on both production and cost of production if not to improve on them.

(2) *Olavakkot Saw Mill.*—The operations at Chenat Nair were started with the idea that the entire outturn would be absorbed in the log by the Kolar Gold Fields. This was soon proved to be impossible of fulfilment as many of the timbers were unsuitable for use at the mines and at the same time the timber market continued to weaken until contracts for proved timbers could be made at prices considerably below their real value. It, of course, followed that unknown timbers became a drug on the market.

It had been foreseen by the Chief Conservator of Forests, Mr Cox, the then Conservator of Forests, VI Circle, Mr. H. Tireman and myself that, were any such contingency to occur, the only possible way to develop the South Malabar evergreen forests would be to erect a saw mill and box-making plant in connexion with the Chenat Nair Logging Operations. On presenting the case to Government, a grant of Rs. 1,75,000 was made by the Legislative Council in order to give the Forest Department a chance to show what could be done with the large areas of evergreen forests in the Presidency.

We expect to have this mill erected and ready for operation by October 1st. The remaining six months of the coming year will largely be taken in training a crew to run the mill, in establishing market connexions, and in accumulating stocks. From all indications at present, there will be no difficulty in disposing of our product at good prices as we plan to produce a better product than has yet been placed on local markets. That is, we propose to furnish *seasoned* material in the form of boxes, doors, window frames, panelling and structural timbers, of *guaranteed species*, and also to saw sleepers for the railways. From inquiries and investigations to date, there seems to be little doubt that we will be given all the business we can handle.

In order to manufacture a guaranteed seasoned product we are erecting a battery of four drying kilns under the direction and plans of the seasoning experts at Dehra Dun. These kilns will be run by a man especially trained for their operation.

II. *Tinnevelly Evergreen Forests.*—On further investigation of the Papanasam forests with Mr. Raitt, Paper Pulp Expert from Dehra Dun, it seems increasingly probable that we will eventually be able to establish in this area one of the largest wood using centres in India.

The central plant of the proposed industries would be a paper pulp mill using as material the Eta bamboo, one of the best paper-making materials in India, and one which reproduces itself every $3\frac{1}{2}$ years; so a perpetual supply of material can be assured *without denuding the hills.* In connexion with this we hope to combine a match factory, using the same material, the waste from the match factory being utilized by the pulp mill. In addition to these plants, we expect to cut a comparatively small coupe of timber each year, which will support a small saw mill and box-making plant. In connexion with the saw mill we should have a pencil factory using the waste from the saw mill and with the transportation facilities made necessary by the above mentioned plants we can supply the whole district with cheap fuel.

All these industries may, I think, be operated by local water-power without impairing either the supply of water for irrigation or interfering with the power developed by the Papanasam Cotton Mills

In order to present this scheme properly, however, at least two years of surveying, mapping and preparing estimates will be required, most of which work will be under Mr. Pearce, the Logging Engineer.

III. *Mount Stuart Roads.*—On inspecting the roads under construction and survey in this district the Chief Forest Engineer was informed by the Forest Engineer in charge of the work that an excess of approximately Rs. 22,000 would have to be incurred in completing the Mount Stuart Ghat Road.

By shortening the alignment without increasing the gradients, by utilizing part of an existing road, and by reducing rates, this proposed excess has been reduced to a saving of Rs. 4,200 over the original estimates sanctioned for this project.

The road surveyed to the Mount Stuart bungalow, estimated to cost Rs. 94,000 has been disapproved and surveys are now under way which will furnish a much more useful road at lower gradients and less cost.

IV. *Forest buildings.*—Plans are under way for the construction of all types of forest buildings at lower cost. Plans and estimates are being prepared to give standardized designs for such buildings with all quantities and materials worked out so that, by the inclusion of local rates, full estimates for any given building may be presented at short notice and on approved lines.

V. *The Logging Engineer.*—Mr. Pearce has been very busy installing new logging methods at Chenat Nair, preparing plans and surveying for the new mill, surveying pole roads and fuel ropeways, mapping and enumerating the area for the next five years' operations, preparing volume tables, and advising as to engineering work in the Wynaad and at Beypore.

During the coming year he will have to maintain survey, mapping, and enumeration parties at Chenat Nair, Ambasamudram, South Kanara and Nilambur. He will also probably advise Coorg as to some of their logging problems.

It is of the highest importance that Madras should know where and what her timber resources are. Extensive plans must be made far in advance for the proper exploitation of these resources to avoid costly mistakes such as have been made in the past and to prepare for the inevitable development of tropical timbers.

In order to do this, Mr Pearce will have to train and manage at least 12 field parties scattered all over the Province. In South Kanara alone we plan to map and enumerate approximately 30,000 acres of timber land; in Tinnevelly to survey and estimate 17 miles of metre-gauge railway and 12 miles of flumes. Added to this will be work going on at Chenat Nair and Nilambur.

VI. *Forest utilization.*—The scope of the work coming under this department has increased so rapidly under the direction of Mr. Wernham that it is difficult to cover the ground in a brief report of this nature. This work must be rapidly expanded if we are to realize anything like the benefits now made possible by the organization of the Forest Engineering Branch of the department.

I will take up a few of the problems now being handled by the Forest Utilization Officer in detail—

(1) *Data on existing markets.*—This involves the collection of figures showing the total amount of forest produce used in the Presidency, the form in which it is marketable, where the marketing centres are for different products, and current prices.

To collect this information we propose to divide the province into three districts, each covered by a Ranger, who will collect such information locally and forward it to the Forest Utilization Officer.

(2) The above data would be of little value to us if we do not know where our supplies of raw materials exist, the quantities available, the cost at which they may be extracted and the cost of transport to markets.

The resources are being surveyed by the Logging Engineer; the cost of extraction to centrally erected timber centres is being obtained from local officers, and data on transport costs is being assembled.

This all involves a great deal of correspondence and our present staff is entirely inadequate to the proper co-ordination and filing of returns so that the information may be available for use.

(3) *Sleeper supply.*—This also is a very intricate question involving the locating of supplies, estimates of costs of extraction and delivery, and negotiations with the railways in the matter.

We have taken up the supply of sleepers suitable for preservative treatment in order that we may guarantee sufficiently large supplies over a period of years to justify the railways in installing plants for such treatment. In order to expedite the matter, we are furnishing the railways with plans and estimates for such plants, together with probable cost of operation.

In this way we hope to do away with the importation of treated sleepers and to furnish the railways with an assured supply at reasonable prices.

(4) *Export of timber to Europe.*—This matter was in a somewhat chaotic condition, no proper accounts were in existence and there was no centralized record of sales or shipments.

The account forms are being standardized and supplies are being co-ordinated, so advantage may be taken of the increase of business which is now in prospect.

(5) *Collection of data on Madras timbers and their uses.*—All the research along these lines during the past years is being collected and will be filed for reference as soon as sufficient staff is available. It is hoped to issue a booklet on the more useful species and to spread information as to the uses to which they may be put and as to what supplies are available.

(6) *Establishment and co-operation with Forest Industries*—(*a*) *Bobbins and spindles.*—Madras possesses exceptional opportunities for the installation of plants to manufacture these articles in that we have a large supply of suitable woods and also have a very large local market for the product.

(*b*) *Handles and turnery.*—Here, again, Madras has the timbers, now largely unutilized and also possesses large potential markets in the railways and in the large planting community.

(*c*) *Paper pulp.*—The province has large supplies of the Eta bamboo, one of the best paper-making materials in India, in some cases has local water-power available for the running of such mills, and has sufficient local supplies of lime. As pointed out earlier in this report, work is proceeding looking towards the establishment of a large pulp plant.

(*d*) *Matches.*—Inquiries are received every few weeks as to supplies of raw material for this industry. The largest supply available is probably the Eta bamboo, but when the match factories are willing to locate near a saw mill, they can probably be supplied with match stock from odd lengths from the mill. The industry cannot pay high enough prices for raw material to justify long rail shipments in the log.

(*e*) *Pencils.*—Much the same situation exists as to wood for pencil manufacture. We have certain woods which do very well for cheap pencils, but the raw material cannot stand heavy transport charges. The plant must be near the source of supply.

(*f*) *Box-making industry.*—Existing local markets are very large indeed and depend largely on importation of foreign boxes. The reason for this has been that local supplies were very uncertain, the material used was practically unseasoned, and the general product only suitable for an inferior grade of boxes. These objections may all be overcome by developing proper seasoning facilities, as good box timbers are to be had in abundance. The seasoning also reduces the weight of the box which has been an important factor in favour of imported boxes.

Much valuable work on this line is expected to be done by the new box plant at Olavakkot

(7) *Minor Forest products.*—Inquiries are constantly coming in as to the supply of various minor products, such as cutch, divi divi, etc. In order to co-operate with such inquiries we must know where our supplies are, the cost of extraction, current prices, and how the product must be prepared in order to meet market requirements.

To collect and make use of such information it is proposed that a Provincial officer should be placed directly in charge of the collection of such data.

(8) *Grading of timber.*—In order to compete in foreign and in local markets it will be necessary to establish standard merchantable grades for logs and sawn products. Buyers at a distance must know what they are getting.

This requires considerable collection of information as to existing Burma grades, Nilambur and Pollachi grades, from which standard grades may be evolved.

(9) The Forest Utilization Branch will have the organization of markets for the new Olavakkot mill. It has to correlate reports from this mill and from Russellkonda as to the current working of the plants for submission to Government.

(10) *Organization of fuel supplies.*—Fuel is one of the most important of forest products and much can be done in organizing and stabilizing supplies for the various industrial centres both to the advantage of Government and to the consumer. Considerable work is now being done along this line, but is hampered for lack of staff.

(11) *Research and timber testing.*—With hundreds of unknown woods in the Presidency forests it is of the highest importance that all past research as to the usefulness of such timbers be correlated and that new research be constantly kept under way.

Arrangements have been made with Dehra Dun and with the Madras Engineering College for co-operation along these lines. Timbers must be tested as to strength and durability before they can be recommended for various uses.

The possibilities of veneers for boxes must be investigated and many other lines of research undertaken.

VII. During the past six months we feel that we have made a start only. Every day we are discovering new possibilities. The staff of the Forest Engineering Branch is energetic and very keen on the work in hand, and, given proper support from Government and from the public, will, I believe, prove of the greatest assistance in the economic development of the forest resources of the Presidency. Within ten years I believe that we can attain that surplus of rupees forty lakhs mentioned by the Chief Conservator in his speech before the Legislative Council.

We expect the next year to show much greater progress and in 1925-26 we expect to begin to reap some of the returns from organizing the business side of the Forest Department along business and engineering lines.

ADMINISTRATION REPORT

OF THE

FOREST DEPARTMENT

OF THE

MADRAS PRESIDENCY

FOR THE YEAR ENDING 31ST MARCH 1925

[*Photo—O. E. O. Ooty.*

VIEW IN THE EVERGREEN FORESTS OF THE WESTERN GHATS

PRICE, *Rs.* 1-8-0]

VOL. I

BOMBAY BRANCH
OF THE
Royal Asiatic Society.

Government of Madras

DEVELOPMENT DEPARTMENT

[This report is printed on paper made at the Forest Research Institute, Dehra Dun, from the Eta Bamboo (Ochlandra) of the Tinnevelly Ghats. It contains 90 per cent bamboo and 10 per cent china clay and sizing.]

G.O. No. 270, 23rd February 1926

Forest Administration Report, 1924–25.

Order—No. 270, Development, dated 23rd February 1926.

Recorded.

2. The Government have read with interest the Chief Conservator's summary of the aims and objects of forestry, the past administration of the department, the present position and the possibilities of the future.

3. The Retrenchment Committee recommended the definite separation from the Forest Department of what may be termed 'Ryots' forests' and the transfer of their control to the Land Revenue Department and also the classification of forests retained by the Forest Department into 'Remunerative' and 'Unremunerative'. The Government discussed the subject at a Conference of Conservators in January 1924 and decided that forests should be classified as—

(1) Provincial Remunerative,
(2) Provincial Unremunerative, and
(3) Local, i.e., ryots' forests.

Mr. T. A. Whitehead who was directed to undertake the work of classification divided the forests under the following three main heads:—

(1) Forests which should be retained permanently under the control of the Forest Department,

(2) Forests the classification of which should be postponed until after the panchayats have shown themselves trustworthy in the efficient protection of forests, and

(3) Forests over which the Forest Department may relinquish control.

The Government noticed that the classifications proposed were defective in certain respects and that local opinion had not been consulted in the details of the classification. They have

accordingly directed that in all districts except Ganjām, the Nilgiris, Malabar, South Kanara, Tanjore, Ramnad and Madras, lists of forest reserves as proposed to be classified should be published in the district gazettes for general information and that local committees should be constituted consisting of the Collector as President, an officer of the Forest Department nominated by the Chief Conservator and not less than three non-officials nominated by the Collector to scrutinize the details of the classification and to make such recommendations as may seem necessary.

The Government have also issued orders transferring the control of 'local' or 'ryots' forests and of the Forest Panchayat staff to the Land Revenue Department.

4. The Government note with satisfaction that under the guidance of Messrs. Martin and Pearce who possess great experience of American methods the operations of the Engineering branch of the department have been put on a well organized basis and that it is hoped that the future extension of logging can be planned in an economical and efficient manner.

5. With a view to enable the Forest Department to supply the sleepers required by the Railways, the Government have sanctioned the establishment during 1926–27 of three sawmills, one in the Wynad forests, one in Mount Stuart and a third in South Kanara.

6. The Government are glad to be assured that the experiment in natural regeneration of evergreen forests following on a system of clear felling has proved a success.

7. The Government realize the necessity of providing residential accommodation for District Forest officers and proposals for the construction of bungalows, two in Mangalore and one in Kurnool during 1926–27, are under their consideration.

8. There has been no material change in the number of forest offences. The system of early burning to protect the forests from fire has been continued in most of the more important forests. The Government note with satisfaction that the adoption of this system has resulted in considerable reduction of expenditure.

9. At the meeting of the Legislative Council held in February 1925 a resolution was passed recommending that the seigniorage on grean leaf manure should be fixed at 6 annas per cart-load in reserves under departmental management and at a rate not exceeding 6 annas per cart-load in reserves under the control of forest panchayats without prejudice to any existing privileges in any part of the Presidency. After an examination of the whole question the Government have re-affirmed the general policy that the ultimate aim should be the prohibition of the removal of leaf manure from reserved forests where sufficient facilities for cultivation of green

manure crops exist. As regards reserved forests classified as 'ryots' forests' the Government are not prepared to interfere with the discretion of panchayats. The Chief Conservator of Forests and the Director of Agriculture have been asked to re-examine the question as to whether any and, if so, what localities require special treatment and to submit a joint report to the Government after obtaining local opinion in the matter.

10. At the close of the year under review 985 square miles of forests were managed by 507 panchayats. The Government observe with satisfaction that there has been an improvement in the protection of the forests and the ryots have shown keener interest in their management. Two hundred and sixty-one panchayats were working on sound lines but the work of 82 panchayats was unsatisfactory. This is attributed to the large areas in charge of each Panchayat Inspector and the consequent inability of the Inspectors to devote adequate attention to individual panchayats. The Government have sanctioned the employment of one additional panchayat officer and ten special Deputy Tahsildars and establishment for the organization of forest panchayats. The Government trust that this increase in staff will result in increased efficiency in the working of panchayats.

11. The total gross revenue during the year was Rs. 55·70 lakhs against an expenditure of Rs. 51·18 lakhs. There was thus a surplus of Rs. 4·52 lakhs as against Rs. 7·22 lakhs in the previous year. The comparatively smaller surplus is due to increased expenditure on works including capital works.

(By order of the Governor in Council)

V. PANDRANG ROW,
Secretary to Government.

To the Chief Conservator of Forests.
,, Accountant-General.
,, Secretary to the Government of India, Department of Education, Health and Lands (with C.L.).
,, Inspector-General of Forests (with C.L.).
Editors' Table.

Proceedings of the Chief Conservator of Forests

Procgs. No. 251, Press, 22nd October 1925

Administration Report—Forest department—1924-25

H. TIREMAN, Esq., C.I.E.,
Chief Conservator of Forests.

TABLE OF CONTENTS.

	PARAS.
I. Introductory Note ...	2–17
II. Working Plans	18–23
III. Utilization	24–44
(i) Development ...	25–38
(*a*) Chenat Nair ...	26–29
(*b*) Olavakkode Saw Mill ...	30
(*c*) Mount Stuart ...	31
(*d*) Tinnevelly ...	32
(*e*) Railway Sleepers.	33
(*f*) Nallamalais ...	34
(*g*) Wynaad ..	35
(*h*) Russellkonda Saw Mill ...	36
(*i*) London Agency.	37
(*j*) General ...	38
(ii) Supply of Produce ...	39–44
(*a*) Timber	39
(*b*) Fuel	40
(*c*) Bamboos ...	41
(*d*) Sandalwood ...	42
(*e*) Grazing ...	43
(*f*) Removal of forest produce by right holders and free grantees ...	44
IV. Sylviculture	45–58
(*a*) Natural Regeneration.	45, 46
(*b*) Artificial Regeneration ...	47–55
(*c*) Tending and other miscellaneous sylvicultural work ...	56
(*d*) Afforestation ...	57
(*e*) Research and Experiments ...	58
V. General Administration.	59–76
(i) Alteration in area ...	59
(ii) Forest Settlement ...	60
(iii) Demarcation	61
(iv) Survey	62
(v) Roads and Communications	63
(vi) Buildings	64
(vii) Other Works ...	65
(viii) Live-stock	66–67
(*a*) Elephants ...	66
(*b*) Cattle	67
(ix) Breaches of the Forest Act	68
(x) Protection from Fire	69
(xi) Forest Panchayats ...	70
(xii) Forest College ...	71
(xiii) Vernacular Training Schools	72
(xiv) Finance	73–75
(xv) General	76
VI. Appendices and Annual Forms.	

Proceedings—No. 251, Press, dated 22nd October 1925.

I have the honour to submit the progress report of Forest administration in the presidency for the year ending 31st March 1925 with the following review.

I.—INTRODUCTORY NOTE.

2. The Forest department is and always has been the object of so much criticism that I think it will not be out of place if I take

this opportunity of placing on record a short account of the aims and objects of forestry, the past administration of the department, the present situation, and the possibilities of the future. Much of the criticism referred to is ill-informed, and this is scarcely to be wondered at, for the climate of the greater part of this presidency does not favour the growth of large trees, and the only conception of "forests" which can be formed by the vast majority of the people is that furnished by the thorny scrub jungles so common in the drier districts. The administration of the department has on more than one occasion been referred to as a huge joke. I trust that, knowing the facts, I may not be considered as deficient in a sense of humour if I plead inability to appreciate the joke, though it is perhaps not unreasonable for those whose acquaintance with forests is limited to the scrub jungles in the vicinity of Madras to regard the employment of men trained in the most modern methods of commercial forestry as a subject for jesting.

3. Speaking broadly, the aims of Forest administration are three fold. Firstly, they are the obtaining of the highest possible income from that part of the forest estate which is commercially valuable; secondly, they are the protection of the forest growth growing in mountainous tracts so that erosion and landslips may be prevented, and the flow of water in the streams which have their source in the hills may be regulated; thirdly, the administration aims at preserving intact the smaller forests on which the neighbouring population depends for its supplies of small timber, and fuel, and for grazing grounds for the local cattle.

4. When the Madras Forest department was formed it had before it the immense task of ascertaining what forest land was the property of the State, and in demarcating such tracts as it was considered advisable to reserve, and it is only of recent years that this may be said to have been practically completed. For many years therefore the efforts of the department were chiefly concentrated on this important work, and it was not possible to devote much attention to the development and exploitation of the commercially valuable forests. Even however when demarcation and settlement were more or less complete these forests did not receive the attention which they merited. They are situated chiefly in remote and rough mountainous country, and in order to obtain from them the return which they are capable of yielding, considerable capital expenditure was necessary on buildings, roads and plant. On the other hand the far less intrinsically valuable forests of the plains yielded a very considerable net revenue. They lie for the most part in populous tracts, and the produce is removed by the purchasers themselves; little or no expenditure was therefore needed on roads and buildings, and the cost of management was to

a great extent limited to the pay of the establishment required to collect the revenue from forest produce and grazing, and to prevent or detect offences. In pre-war days when a forest guard was paid Rs. 8 per mensem the cost of this establishment was far less than the revenue which was so easily obtained, and there was no great inducement to embark on a policy of exploiting tracts where to obtain revenue considerable expenditure was first necessary.

5. The minor forests from which the bulk of the revenue came were incapable of much development. The revenue could not therefore be increased, and when the post-war rise in salaries took place the forests no longer paid their way. The result was that the Forest department which had previously returned a fairly handsome income to the State began to yield very little, and in fact in one year was worked at a loss.

6. Concentration of attention on the minor forests had the inevitable result of making the department extremely unpopular. The uneducated ryot who for centuries had regarded the forests at his door as common property where he had been wont to graze his cattle without let or hindrance and to cut what he wanted in the way of timber and fuel very naturally resented the obligation to pay for his requirements, and the inevitable harassment which he suffered at the hands of the ill-paid forest underlings. The department came to be regarded as the enemy of the people, and when at the same time its working brought in little or no profit to the State it is scarcely to be wondered at that people began to ask "*Cui bono?*"

7. The position until quite recently thus was that a large and expensive trained staff was being maintained very largely to manage scrub jungle for which no technical skill was required, that this management was giving rise to serious discontent, and that it resulted in little or no profit to the State. It was clear that some change was necessary. It was evidently uneconomical to employ men trained in scientific forestry to protect scrub jungles from goats, more especially while there were large areas of valuable timber forest from which, for want of development, little or no return was being obtained. The forest panchayat system inaugurated some few years previously had been made more elastic and was giving considerable promise of success, and after due consideration Government decided to re-classify all the forests in the presidency, dividing them into two main categories, viz., forests of provincial importance as being either remunerative or protective, and ryots' forests. This classification was carried out during the year under report and since its close the Government have decided that the ryots' forests shall in future be managed by the ryots themselves

through the medium of panchayats in all cases where panchayats are likely to work efficiently. All forests now under panchayat management have been transferred from the control of the Forest department to that of the Revenue department, and in future all ryots' forests will be similarly transferred as soon as they have been handed over to panchayat management. Nearly one thousand square miles have already been transferred to the Revenue department and before long it is hoped that the Forest department will be freed from the duty of administering a further area of some three thousand square miles.

8. Until quite recently, for reasons which I have already explained, the development of the valuable timber forests was more or less neglected. It is an illuminating, if somewhat unsatisfactory, fact that most of the divisions in which the timber forests are situated (Ganjam, Upper Godavari, Kurnool, South Coimbatore, South Kanara, Wynaad and Palghat) are worked either at a loss or at a very small profit. Nilambur brings in a profit as also does Tinnevelly, but the former is an exceptional case, and in the latter the revenue from timber is only a few hundreds of rupees. The revenue of the Madras Forest department is chiefly derived not from its timber, but from sandalwood, grazing and minor forest produce and the total receipts from these three sources are more than double those derived from timber. If it were not for sandalwood and minor produce (and the bulk of the revenue from the latter source is derived from lands not under forest control) the department would have worked at a loss for several years.

9. If I may venture to say so, I regard the recent decision of Government to remove the ryots' forests from the control of the department as the most important event in the annals of Forest administration in Madras, for not only has it removed a frequent cause for complaint on the part of the people, but it makes it possible for the trained talent of the department to be concentrated on the administration of what is a very valuable property. I have more than once heard it stated that the importance of the ryots' forests to the general public is as great as—if not greater than—that of the timber forests. In this connexion the following facts may be of interest. The only people who derive benefit from the ryots' forests are those who live within a few miles of them; they are of no interest whatever to the people of the West Coast, the Nilgiris, Ganjam, the great deltas or the Agency or Zamindari tracts. It is impossible to obtain statistics of the people who live in the neighbourhood of these forests, but the population of the taluks in which they are situated is about $21\frac{1}{4}$ millions while the total population of the presidency is $43\frac{1}{4}$ millions. Even if every inhabitant of the taluks in which the ryots' forests are situated

derived benefit from them, and it is obvious that this is not the case they are of no interest whatever to more than half the population. On the other hand every inhabitant of the presidency is directly interested in additional revenue. The ryots' forests are capable of little, if any, development and additional revenue can be obtained only from the forests classed as of provincial importance. It follows therefore that the latter are of considerably greater general importance than the former.

10. The potential value of the timber forests can admit of no question. Apart from the smaller forests of Upper Godavari and the Nallamalais, the red sanders forests of Cuddapah and the various tracts in which sandalwood is found, there are some 2,000 square miles which carry a crop of big timber. From these forests the quantity of timber extracted departmentally every year is not more than one cubic foot per acre, and the net revenue derived is practically entirely swallowed up by the cost of managing and protecting them. In Europe the annual yield per acre is often in the neighbourhood of 100 cubic feet of timber; conditions in the tropics are considerably more favourable for rapid growth and already in the intensively worked Nilambur teak plantations the first-class woods yield 82 cubic feet and the second 59 cubic feet per acre per annum. At a low estimate therefore the 2,000 square miles of forest—much of which is evergreen where the trees reach huge proportions—should with proper management yield 25 cubic feet per acre per annum. The greater part of this would probably be soft woods but a considerable proportion would consist of such valuable timbers as teak, rosewood, *Pterocarpus marsupium*, *Lagerstromia lanceolata*, *Terminalia tomentosa*, *Mesua ferrea*, *Hopea parviflora*, *Artocarpus hirsuta* and the like, and it is very unlikely that the average net profit on the outturn after paying "overheads" and cost of extraction would be less than two annas per cubic foot. This would mean Rs. 3 per acre per annum or on 2,000 square miles approximately Rs. 40 lakhs of net profit where at present the profit is nil.

A typical timber forest (evergreen) is depicted on the cover of this report.

11. At present large quantities of timber are being imported into India at an annual cost of several crores of rupees. The timber which now goes to waste in the Madras forests is just as good as the imported article and if it could be utilized instead of being left to rot not only would a substantial increase in the revenues of the presidency be obtained but large sums of money which now go to the foreigner would be retained in the country. To bring about this desirable result however and to utilize the timber which now goes to waste an immense amount of work and considerable

expenditure are required. The greater part of the timber forests are situated in hilly and difficult country. Elephant haulage is out of the question for it is too costly and there are not sufficient elephants in existence to deal with the large quantities of timber available. More modern and efficient methods of handling the logs in the forests are required. These involve the employment of expensive machinery and the construction of roads, dragpaths and the like. To enable the machines to be operated and the timber to be extracted in the most efficient and economical manner, and to ensure the best locations for the roads a thorough examination of the forest is required. The stock must be enumerated in order to ascertain the quantity of marketable timber in each tract of the forest and a large scale topographical survey must be made so that roads and dragpaths may be laid out as cheaply as possible.

12. Then again the question of the transport of the timber to the saw mills must be examined, and an organized system of mechanical transport evolved; the quantities which can be dealt with by the country cart are limited, and this class of transport is slow and expensive.

13. Further the saw mill industry in this country is unorganized, and handsawing is still largely resorted to. Except for the kilns recently erected by the department at Olavakkode no plant exists in South India in which timber can be scientifically seasoned. The indigenous timbers—with the exception of a few of the most valuable—cannot compete with the imported article unless they are put on the market properly seasoned and cut to the sizes required by the trade.

14. Organization of the lumbering business, i.e., the whole of the processes required for the conversion of the growing tree into marketable timber—has been brought to a fine art in the United States of America and it was for this reason that Messrs. Martin and Pearce who possess great experience of American methods were engaged by Government. Under their able guidance a beginning has been made in the matter of introducing modern lumbering methods. Before their arrival operations in the much discussed Chenat Nair forests were being carried on in a more or less haphazard manner, and it must be admitted did not give much promise of success. A thorough preliminary examination of the forest had not been made and unnecessary expenditure was incurred in the faulty location of roads and dragpaths. It cannot be said however that the money spent was altogether wasted as considerable experience was obtained and it was conclusively proved that operations of this kind cannot be carried out efficiently without the help of experts. The operations have now been put on a well organized basis; the whole forest has been topographically surveyed and the stock of timber enumerated, and future extensions of logging can now be planned

in an economical and efficient manner. An up-to-date saw mill has been installed at Olavakkode and three kilns have been constructed in which the sawn timber can be scientifically seasoned as soon as it is sawn.

15. It must not be expected that the Chenat Nair operations combined with the Olavakkode plant will show a profit in the current year as much spade work is necessary in order to establish a market, but it is hoped eventually that they will prove a financial success. Their purpose however should be regarded more in the light of an experiment on a commercial scale conducted with a view to prove that the more or less unknown and less valuable timbers of the Madras forests can be placed on the market and made to take the place of those which India is now importing at such cost.

16. The aim of the Forest department to-day is to carry out the vast amount of work necessary to bring about a substantial increase in the revenues of the State, and at the same time to improve the balance of trade by eliminating to some extent the imports of timber. It must not be forgotten however that an equally important function of the department is the regeneration of the exploited forests and the replacement of the timber removed by a more valuable crop of young trees. There are also large areas—chiefly in South Kanara—where the original valuable forest was destroyed by the pernicious system of kumri cultivation. These areas must be restocked with a valuable crop which in time will more than repay the money spent on it.

17. Increased revenues are not to be looked for at once. The life of a tree is upwards of 100 years and forestry is a slow moving science. An immense amount of organization is required, and this will take time. The removal however of the ryots' forests from Forest control with the consequent elimination of opportunities for friction between the people and the officers of the department should go far to remove the mistaken—if firmly held—belief that the Forest department is the enemy of the people. It is on the other hand a trustee of the people for a very valuable property. Its main function in future will be to put this property to the best possible use, and I look forward with confidence to the day when the department will be regarded as a public benefactor.

II.—WORKING PLANS.

18. A working plan is a detailed scheme for the scientific working of a forest on an organized basis, and prescribes the methods to be adopted in the extraction of the produce, and the operations necessary to ensure the regeneration of the forest crop.

Without a properly compiled working plan no systematic management is possible. This extremely important branch of Forest administration has not in the past received the attention which it warrants, chiefly owing to a shortage of staff. Since the close of the year under review, however, a Working Plan Circle under a Conservator has been formed and it is to be hoped that this will lead to greatly improved methods of working.

19. In my review last year I referred to the mapping and enumeration work which had been carried out by the Logging Engineer in the Chenat Nair forests. During the year under report a considerable expansion of this work was carried out under the direction of the Logging Engineer; details of the work done will be found in this officer's reports printed at pages 151 to 157 of volume II. The greater part of the Chenat Nair forests has now been mapped and enumerated and similar work was commenced in the forests in the neighbourhood of Someshwar in the North Mangalore division. These carry a good stand of timber and as they are situated within a short distance of the sea their exploitation should be comparatively easy and profitable. By the end of the year approximately 5,000 acres had been mapped and enumerated. Similar work was also carried out in the Nellikutha reserved forest of Nilambur and in the Nalkur reserve of South Mangalore division with a view to working these reserves for the supply of sleepers to the railway.

20. On the opposite page is printed a sample of the maps produced by the enumeration parties working under the direction of the Logging Engineer. In practice two maps are drawn one on drawing paper showing topographical details and the other called the "cover map" on transparent paper showing the quantity of timber of each exploitable species standing on every block of two acres. Used together (the cover map placed over the topographical map) the two maps show the distribution of the timber and the character of the country to be exploited. In the sample map (which is reduced from a scale of one inch equal to 300 feet) the cover map is not printed separately but its details are shown in red.

21. The mapping and enumeration work carried out falls under the category of working plans as it is on the information obtained by this work that working plans will be based. Although no important working plans were sanctioned during the year, a great step in advance was made in the way of preliminary spade work.

22. Simple working plans not calling for any great amount of technical details were prepared and sanctioned for the West Vellore division and the Sirvel range in South Kurnool, as well as schemes

PHOTOGRAPHED FROM THE ORIGINAL

TOPOGRAPHIC MAP OF

SAPPAL VALLEY

CHENAT NAIR RESERVE FOREST

Scale 1 Inch = 200 Feet

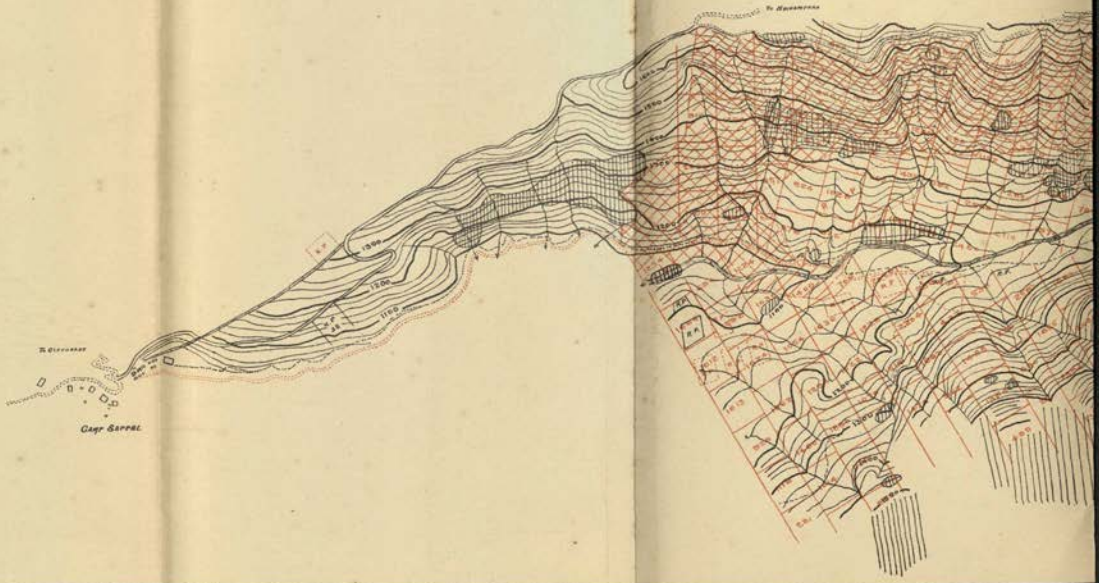
CONTOUR INTERVAL 50 FEET.

NOTE.—This map was prepared by Rangers and Foresters under the direction of the Logging Engineer using the Topographic Trailer Tape—Improved Abney Level method. Mapping strips 4 chains wide run from Transit Traverse—Dumpy Levelled Base line in centre of valley up to Timber line. Elevations referred to B. M. on hydrant cock at Camp Sappal, assumed to be 1,800 feet above sea level. Magnetic declination used 1° 30' West. Mapped in April and May 1906. Roads corrected up to 31st October 1904.

(Sd.) J. KENNETH PEARCE,
Logging Engineer to Govt.
of Madras.

LEGEND

Contours
Main Stream
Creeks
Rock out crop
Cart Roads (Semi-metalled)
Cart Roads (Unmetalled)
Path
Trail
Buildings
Research Plot
FELLED
LOGGED AND CLEARED
ROADS UNDER CONSTRUCTION



Reg. No. 256
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NOTE.—Reproduced from the original received from the Chief Forest Engineer, Madras.

PLATE NO. 1

C. S. Morton.
CHIEF FOREST ENGINEER
MADRAS

Helio-Zinco., Survey Office, Madras
1925.

for the conversion of the Coonoor acacia working circle into eucalyptus forest and for further fellings for the next 20 years in the Coonoor eucalyptus working circle.

Similar working plans were prepared during the year for—

(1) the Catechu forests in the Coondapur range of North Mangalore division,

(2) the Chelama range in South Kurnool division,

(3) the Yerramalais (revision) in the Dhone range of West Kurnool division,

(4) the South Vellore division.

These had not received my sanction by the end of the year.

23. A working plan reconnaissance report was made during the year for the Wynaad and Nilgiris-Wynaad forests and a similar report for the Walayar and Bolampatti forests in Palghat division was under preparation at the end of the year.

III.—UTILIZATION.

24. This subject as its name implies deals with the extraction of forest produce, with its conversion into saleable material, and with its marketing.

(i) DEVELOPMENT.

25. As pointed out in paragraph 11, development of the vast resources of timber now lying idle in the forests depends almost entirely on a preliminary examination of the forests, and on organization of the methods of handling the timber. A reference to the Chief Forest Engineer's report printed at pages 147–161 of volume II will show that a considerable staff has been kept fully employed in these directions and that a great deal of spade work has been accomplished by the Forest Engineering branch. I have already referred to the topographical surveys and enumerations carried out under the direction of the Logging Engineer. In addition the following are the chief items of work in which progress has been made.

(*a*) *Chenat Nair.*

26. Exploitation was continued and during the year the operations were placed upon a properly organized footing, costs of extraction being very largely reduced under systematic management. In this connection reference is invited to page 148 of volume II where interesting figures of the quantity extracted and the cost per unit since the beginning of 1923–24 are furnished. The cost has been reduced to about Rs. 1-3-0 per cubic foot inclusive of all overheads. This is exceedingly satisfactory especially as the work at present is located in the most difficult part of the forest; owing to the

nature of the country the only transport possible is country carts and these are difficult to obtain. It is hoped that when operations are moved to the easier parts of the forest, which will be the case very shortly, it will be possible further to reduce the cost of transport by the employment of mechanical methods.

27. The nature of the logging operations is illustrated by the photographs reproduced on the following pages. Plate No. 2 shows the skidder operated by a Fordson tractor engine. From this machine a steel wire cable runs through two blocks, one at the foot and one at the top of the " Gin-pole " (shown in plate No. 3) and thence downhill to where the logs are lying. The machine is securely anchored on a road to which the logs are hauled by means of the drums shown in plate No. 2. They are then carted away to Olavakkode. Plate No. 4 shows a log weighing over ten tons which was hauled a distance of 1,050 feet up a gradient of rather more than one in five. Plate No. 5 gives some idea of the very steep and difficult country over which the logs are dragged.

28. During the year 98,760 cubic feet of timber were extracted, the best outturn in any one month being 16,782 cubic feet.

29. Most unfortunately, malaria continued to play havoc with the staff and labour; as far as can be seen, there is no practical means of combating this disease except at excessive cost. In future exploitation operations in the evergreen forests it will probably be necessary to locate the labour and staff outside the forest, at all events during the worst part of the year.

(*b*) *Olavakkode Saw Mill.*

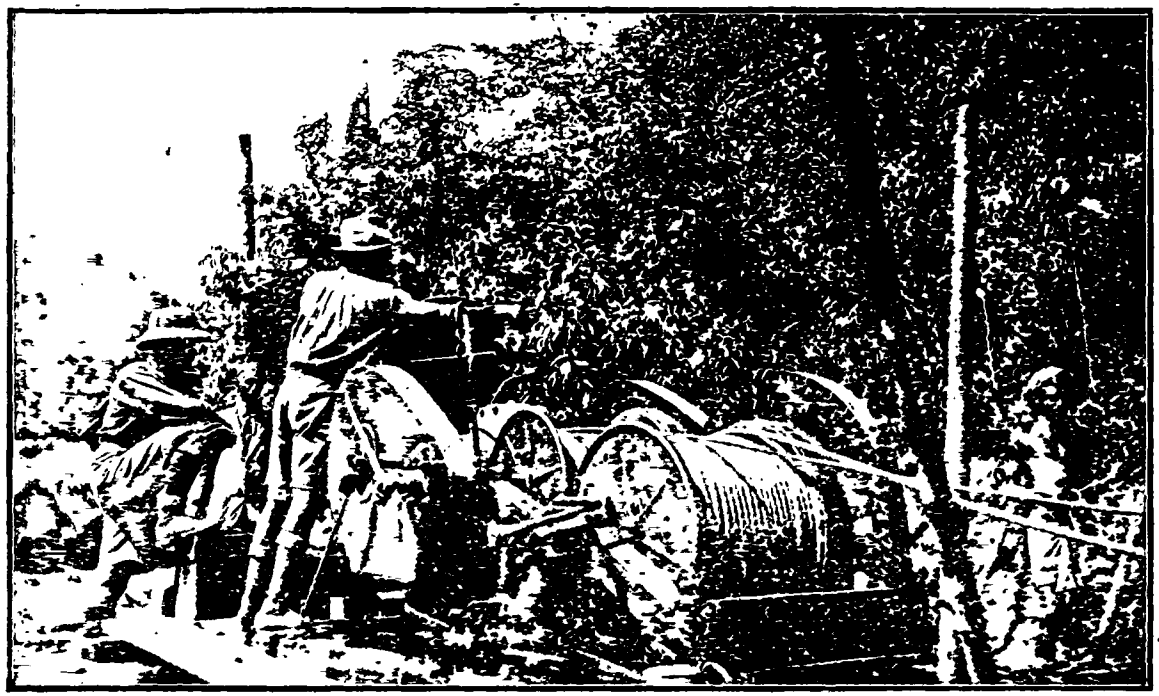
30. The saw mill and seasoning plant at Olavakkode sanctioned at the end of 1923–24 were erected during the year. Our present problem is to market the product of the mill at a profit. This will necessarily take a little time; for, although the mill is busy with orders, it is necessary at first to accept comparatively low prices until consumers have found by experience that the timber turned out by the mill is worth more than the rates now paid. As the Chief Forest Engineer points out, the work at first must necessarily be of an experimental nature. In any case the main object of this mill is to demonstrate to the public that many of the evergreen forest timbers which are now practically unknown can, when properly sawn and seasoned, be put to practical use and made to take the place of much of the timber which is now imported.

A view of the mill is shown in plate No. 6.

(*c*) *Mount Stuart.*

31. The mechanical logging plant was taken to Mount Stuart in July 1924 in order to ascertain by practical demonstration whether

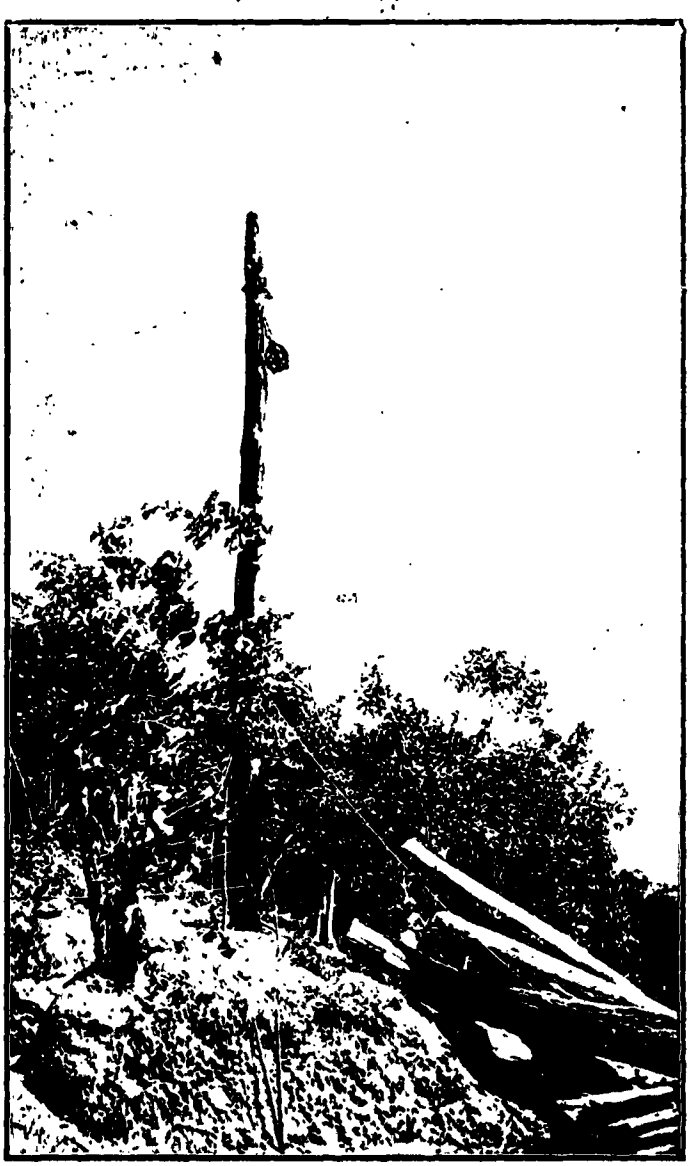
PLATE No. 2.



[*Photo—W. F. Chipp.*

FORDSON SKIDDER

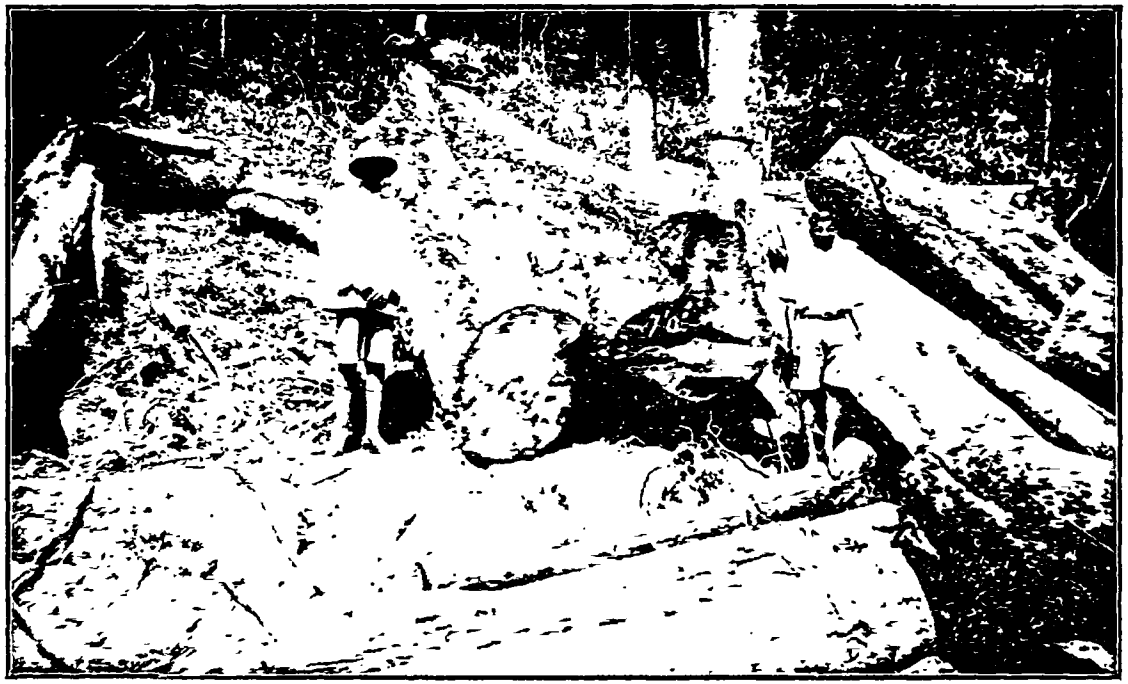
PLATE No. 3.



[*Photo—W. F. Chipp.*

GIN POLE.

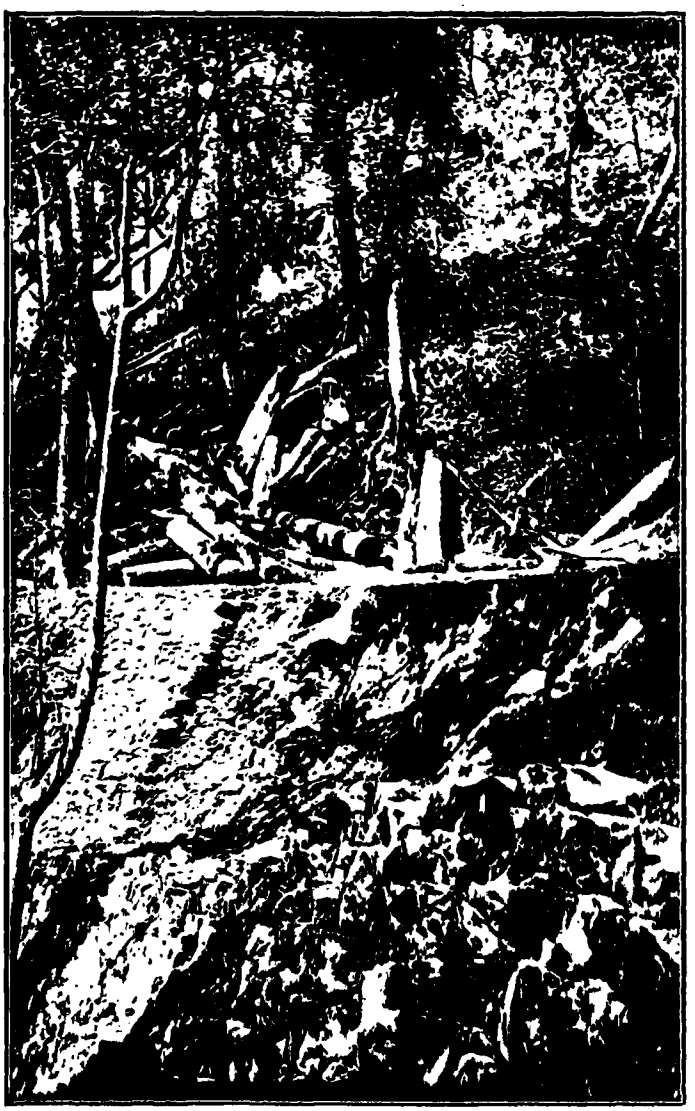
PLATE No. 4



[*Photo—W. F. Chipp.*

LOG OF *Terminalia tomentosa* WEIGHING 10 TONS HAULED BY FORDSON SKIDDER 1,050 FEET UP A 1 IN 5 SLOPE.

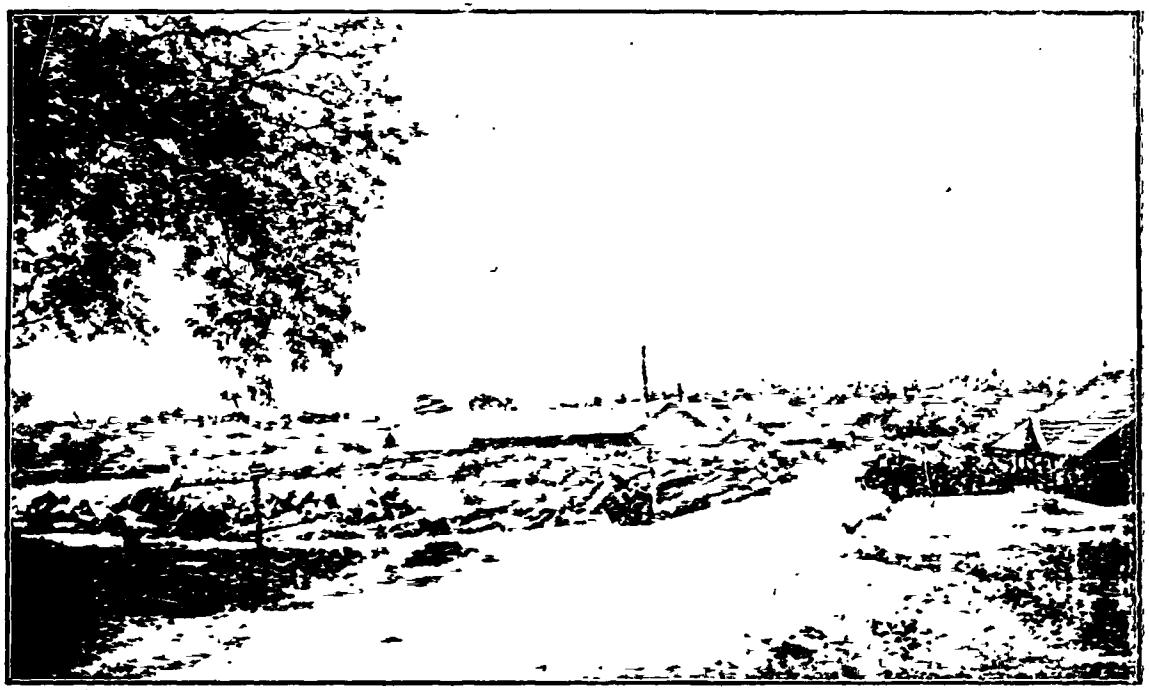
PLATE No. 5.



[*Photo—W. F. Chipp.*

DIFFICULT COUNTRY IN CHENAT NAIR.

PLATE No. 6.



[*Photo—W. F. Chipp.*

GENERAL VIEW OF OLAVAKKODE SAW MILL.

PLATE No. 7.

[*Photo—A. F. Minchin.*

PORTABLE SAW MILL AT BEYPORE WORKED BY FORDSON TRACTOR.

the machinery was suitable for work in the forests of that locality. It was found that animal haulage can be economically supplemented by a limited use of machinery.

The Mount Stuart ghat road was completed and opened to traffic, and, in spite of considerable damage caused by heavy rain and of the fact that the road was opened to traffic before the metal was properly consolidated, a reduction was effected in the carting rates. A survey was completed for an extension of this road into the heart of the forest in order further to facilitate the extraction of timber. A detailed scheme for housing the staff in the least unhealthy part of the forest was prepared and received the sanction of Government.

(d) Tinnevelly.

32. Preliminary investigation into the possibility of exploiting the Papanasam forest was considerably advanced. Some 2,500 acres of timber forest have been enumerated and surveys have been made for the construction of 22 miles of metre gauge railway and 12 miles of flume for bringing Eta reed down to the site of the proposed paper factory. The paper made from this reed has been examined and reported on very favourably by the Deputy Controller of Stationery. It has been used for the printing of this report. Details of the work done will be found in the Logging Engineer's report, pages 151-157 of volume II.

(e) Railway sleepers.

33. A meeting was held during the year under the presidency of the Hon'ble Sir Arthur Knapp, Member in charge of the Forest portfolio, between the representatives of the railways and the Forest department, with a view to discuss the possibilities of the supply of sleepers by the department. It was hoped as a result of this meeting that arrangements would be made to treat considerable numbers of sleepers by the powellising process, but nothing definite has yet been determined on. Meanwhile arrangements have been made to commence the supply of a number of hardwood sleepers which do not require treatment. In connection with this supply, a portable saw mill worked by a Fordson tractor—vide plate No. 7—was installed at Beypore to saw teak sleepers from the timber brought down the river from Nilambur. Sleepers of *Mesua ferrea*, *Hovea parviflora* and *Xylia xylocarpa* are also being prepared in North and South Mangalore, Wynaad and Nilambur divisions.

(f) Nallamalais.

34. In the Nallamalais of Kurnool operations are in progress in several localities with a view to supplying the requirements of the

surrounding country in the matter of timber. Very little exploitation has ever been carried out in these forests in previous years in spite of the fact that on either side of the Nallamalais exist large tracts of treeless country which must have timber. The presumption is that in these areas the timber which the people required was previously obtained illicitly.

(*g*) *Wynaad.*

35. Plans and estimates were drawn up and submitted to Government for a causeway over the Kabbani river in Wynaad in order to facilitate the transport of timber from that division to Mysore.

(*h*) *Russellkonda Saw Mill.*

36. The result of the year's operations was a profit of Rs. 1,894–12–4 as against a loss of Rs. 6,059–5–3 during the previous year. There was an improvement in the selection of logs supplied to the mill as a result of which the average wastage in conversion was reduced from 66·5 per cent in 1923–24 to 62 per cent in the year under review. The cost of conversion was correspondingly reduced from Rs. 1–6–0 per cubic foot during the previous year to Rs. 1–2–10 in the current year. 149,064 cubic feet of logs were converted into 56,117 cubic feet of scantlings. Messrs. Parry & Co. continued to manage the mill as agents to the Government. Their Mill Superintendent writes as follows :—

" *Markets and prices.*—At the beginning of the year the timber market was fairly brisk, but slackened considerably as the year advanced and was particularly dull during the months of October, November and December.

" The prices of scantlings remained the same as in the previous year, but the prices obtained for large section beams had to be reduced slightly in order to compete with prices ruling in Calcutta from which place there was a greater number of enquiries.

" *Sales.*—The sales for the year showed an increase of approximately 5,500 cubic feet over those of the previous year, the quantity sold being approximately 47,055 cubic feet valued at Rs. 1,49,980."

(*i*) *London Agency.*

37. 9,871 cubic feet of timber (*Terminalia tomentosa* and rose wood) were sent during the year to Messrs. Howard Brothers of London for sale. The total quantity sent to London up to the end of the year amounted to 18,234 cubic feet and of this 2,170 cubic feet remained unsold. The following table shows the quantities of timber of each species sold from the time of the appointment of the

agents up to the end of the year, and the profit obtained after meeting all costs from stump to buyer:—

Species.	Quantity sold.	Profit. Total.	Profit. Per cubic foot.
	C. FT.	RS.	RS. A. P.
Terminalia tomentosa (laurel) ...	11,013	23,883	2 2 8
Teak	1,264 *	4,716	3 13 0
Rosewood	3,388	17,621	5 3 3
Albizzia Lebbek (koko) ...	40	110	2 11 11

Much of this timber referred to in the above was shipped some three years ago when freights and London charges were higher than they are at present. In the circumstances the profit obtained may be regarded as very satisfactory especially in the case of rosewood. The net prices obtainable locally (after deducting cost of extraction) vary from Re. 1–4–0 to Rs. 2 per cubic foot for teak, Rs. 2 to Rs. 3 for rosewood, and 4 to 6 annas for laurel.

(*j*) *General.*

38. A great advance in the organization of the commercial side of the department was made during the year and the work of the Utilization office in Madras has rapidly expanded. It was found that there was more work than could be done by one officer, and a Forest Economist was appointed to deal with general research into the uses to which forest produce can be put and co-ordination of information likely to be of use to the consumer ; two Rangers also were appointed to assist the Forest Utilization Officer in collecting information regarding demand and prices. Towards the end of the year an Assistant Forest Utilization Officer was appointed to deal exclusively with minor forest produce. Reference is invited to pages 157–160 of volume II for details of the commercial work undertaken during the year.

(ii) SUPPLY OF PRODUCE.

(*a*) *Timber.*

39. The output of timber was 99,080 tons of 50 c.ft. against 99,520 tons in the previous year; 29,440 tons were extracted by departmental agency and 63,240 tons by purchasers as compared with 26,260 tons and 65,540 tons respectively in the previous year. The increased departmental extraction is attributed chiefly to the experimental extraction by means of tractors in the South Coimbatore division and to the increase in the areas clearfelled in the Nilambur and Wynaad divisions.

* Sale accounts of 359 cubic feet of teak have not yet been received.

(*b*) *Fuel.*

40. 23,583 tons of fuel were removed by departmental agency and 266,083 tons by purchasers against 23,567 and 319,267 tons respectively in the previous year. The decrease in the quantity removed by purchasers is due to a decrease in the areas worked and to a smaller yield per acre.

(*c*) *Bamboos.*

41. The total value of bamboos removed from the forests by all agencies during the year was Rs. 3·45 lakhs against Rs. 4·03 lakhs in the previous year. The decrease is due to a fall in prices and a diminished demand.

(*d*) *Sandalwood.*

42. Nearly 703 tons of sandalwood were sold for Rs. 8,88,085 (at Tirupattur 273 tons, at Satyamangalam 270 tons and at Vellore 160 tons). The average price realized was Rs. 1,264 per ton against Rs. 1,107 in the previous year.

(*e*) *Grazing.*

43. 18·4 per cent of the total area of reserved forests in the presidency was closed to grazing, either throughout the year (12 9 per cent) or for part of the year (5·5 per cent). For grazing in the open area of 16,786 square miles permits were issued for 2,197,632 animals against 2,141,770 animals in the previous year. 223,686 animals were allowed free grazing during the year against 93,299 in the previous year, the increase being due chiefly to the free grazing allowed in all the reserves in the Anantapur division except in the areas under cultural operations on account of failure of rains and scarcity of fodder.

The incidence of grazing works out to 4·44 acres per animal as compared with 4·59 acres in the previous year.

(*f*) *Removal of forest produce by right holders and free grantees.*

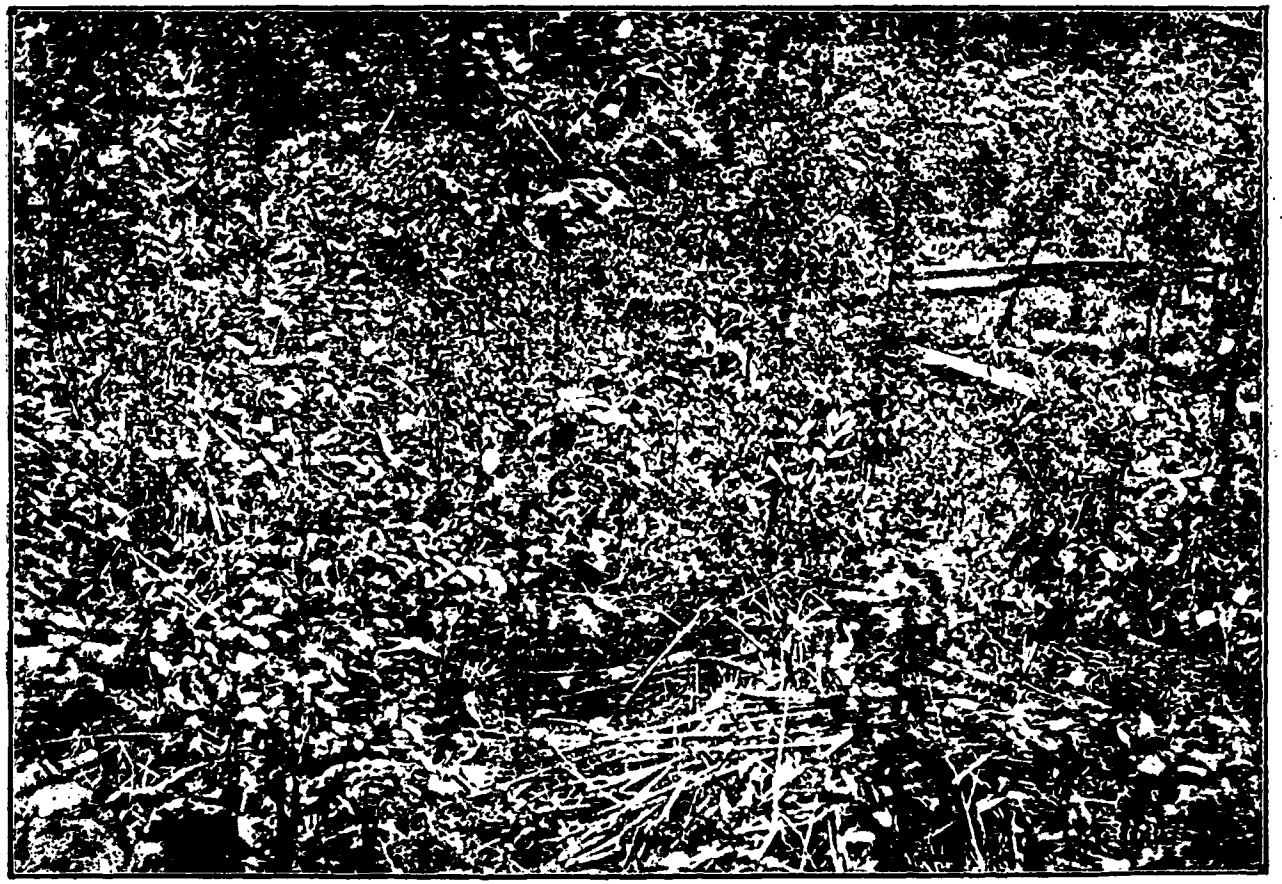
44. The estimated value of forest produce removed by free grantees and right holders amounted to Rs. 71,139 against Rs. 87,496 in the previous year.

IV.—SYLVICULTURE.

(*a*) NATURAL REGENERATION.

45. *The evergreen forests.*—I am glad to be able to report that the very important problem of the regeneration of the evergreen forests may now be considered to have been solved. These forests are almost invariably situated in difficult country where extraction of

PLATE No. 8.



CHENAT NAIR EVERGREEN FOREST—NATURAL REGENERATION THREE YEARS AFTER REMOVAL OF OLD CROP.

timber can be effected only by mechanical means, and as moving heavy machinery is an expensive matter it is essential if logging is to be carried out economically that the whole crop should be extracted in one operation. It was open to some doubt whether the crop of young seedlings which is as a rule plentiful would be able to withstand the sudden exposure to light involved by the removal of the old trees. The exposure however is by no means complete as many of the old trees are unsound and for this reason are left standing, as are also considerable numbers of trees too small to be extracted at a profit, and it was hoped that these would provide sufficient shade to protect the young crop. Recent inspection of three sample areas cleared of weeds in the felled area of the Chenat Nair reserve has shown the existence of an ample crop of young seedlings of the valuable species which are now established and growing vigorously—vide plate No. 8. Enumeration on one acre selected at hazard gave upwards of 1,800 seedlings, some 240 of which were of the most valuable species (*Mesua*, *Calophyllum* and *Dysoxylum*). The weeded plots were selected at random in three different parts of the felled area and may with certainty be taken as fair samples of the whole, and there can now be no doubt that natural regeneration may be relied on to provide a crop which will replace that removed in the fellings. This is extremely satisfactory as it means that the establishment of the new crop will be an easy and inexpensive matter. Moreover the seedlings are plentiful enough to enable the better species to be favoured at the expense of those considered less desirable and thus by careful tending the new crop can be made considerably more valuable than the old. Careful weeding and tending however are essential. The fellings in the locality where the three sample plots are situated were completed in May 1924 and the young crop should have been weeded after the monsoon of that year; it was however entirely neglected and when I inspected it in May 1925 it was swamped by a mass of weeds, and it was impossible to say whether sufficient young seedlings existed or not. The most valuable information regarding the growth of a young crop in conditions typical of those under which the evergreen forests will in future be worked could have been obtained, but a whole season was lost. In spite of this however the young crop is plentiful and vigorous enough to show conclusively that it is unnecessary to carry out cultural operations in advance of the fellings; these are expensive and much of the money spent is inevitably wasted owing to the damage done in the course of the logging operations.

46. *Ganjām.*—In the Ghumsur sal forests of Ganjām clear fellings were conducted over 267 acres according to the prescriptions of the working-plan. The regeneration after the clearings are burnt

is profuse but many of the young plants suffer from the attacks of a fungus. As so much of the mature timber is unsound, probably owing to fungoid attack, it is most important to take all possible steps to prevent the young crop from growing up diseased, and the question is engaging the attention of the Research Officers at Dehra Dun. A further unsatisfactory feature of the growth of the young crops is the fact that after the first thinning many of the trees are unable to stand upright. The Dehra Dun Sylviculturist is investigating the matter; it is hoped that thinnings at an earlier age will induce a more sturdy growth.

(*b*) ARTIFICIAL REGENERATION.

47. Sowing and planting were continued in the forests of Nilambur, Mount Stuart (South Coimbatore division), Gōdāvari, Wynaad, South Kanara, Tinnevelly and Mudumalai (Nilgiris).

48. *Nilambur.*—The year was a most disastrous one. Unprecedented floods in July 1924 did immense damage to the areas which had just been planted. Many seedlings were killed by being submerged and many others were washed bodily away by the exceedingly heavy rain. In the clearing in the Amarapalam range which is at a comparatively high level the area was not flooded, but it was impossible to plant more than about two-thirds of the area cleared owing to the damage to the nursery caused by defoliators.

Altogether 205 acres of mature teak plantations and natural forests were cleared, but owing to the damage described above it has been necessary to replant a greater portion of this area during the current year.

Some 31 acres were planted or sown with *Bombax* and this species has succeeded very fairly well in spite of the heavy rain. Having regard to the very large supplies of softwoods in the evergreen forests which can be put on to the market as soon as systematic working is organized, there seems to be no necessity to cultivate softwoods such as *Bombax* and in consequence no further plantations of this species will be made.

A most unsatisfactory feature of the growth of the teak in the Nilambur plantations is the excessive growth of epicormic branches; it is the exception to find a tree with a clean bole. Whatever may be the cause of this phenomenon (and much has been written on the subject), it is clear that the evil could be remedied by the introduction of a suitable underwood. *Hopea parviflora* grows readily in the locality and as can be seen from a patch where a natural young crop has come in under the teak it serves the purpose of an underwood admirably; the teak stems in this area are clean and free from epicormic growth as can be seen from plate No. 9. Orders have now

PLATE No. 9.

NILAMBUR TEAK PLANTATION. TEAK IN AN UNDERWOOD OF *Hopea parviflora*. NOTE THE CLEAN BOLES OF THE TEAK, AN UNUSUAL FEATURE AT NILAMBUR. FOR TAKING THIS VIEW THE UNDERWOOD WAS CUT AWAY.

been issued to sow or plant a considerable area of teak plantation every year with *Hopea*. Not only should this result in keeping the teak stems clean, but as *Hopea* yields a very valuable timber its introduction must increase the value of the plantations.

Other species suitable for an underwood are Mahogany (*Swietenia Macrophylla*) *and Lagerstromia Flos-Reginæ*. It has recently been observed that Mahogany which was introduced many years ago has begun to reproduce itself abundantly, and the question of using it as an underwood is now under consideration. *Lagerstromia* is suitable for soils which tend to be swampy and in such localities it is likely to serve the purpose of an underwood better than *Hopea* or Mahogany.

49. *Mount Stuart.*—226 acres clear felled in the previous year were sown chiefly with teak, *Terminalia tomentosa* being sown in the more swampy localities. The total area now sown is 611 acres. The Conservator draws attention to the fact that especially in the areas sown in the first four years (1919 to 1922), many of the young trees tend to form two leading shoots, and he considers that much of the area sown is not really suited to teak. This view is undoubtedly correct, and the question of cultivating species other than teak is engaging attention. The growth in the younger plantations is very promising, the average height of the crop raised during the year being four feet in July 1925.

50. *Upper Godavari.*—Clear fellings over 232 acres were carried out on the lines described in paragraph 20 (iii) of my last year's review. The result of teak plantations raised by the 'podu' (shifting cultivation) method is excellent and it is now proposed to extend the method to the Rekkapalli hills where, though at present there is no teak, the conditions appear favourable for its growth.

51. *Lower Godavari.*—65 acres were planted with casuarina.

52. *Tinnevelly.*—56 acres were planted with teak in the lower portions of the Papanasam forests. Regeneration operations on a considerable experimental scale have been in progress for some four years in the unexploited evergreen forests of Tinnevelly and some similar work has been done in the Chenat Nair forest. The purpose of this work which consisted in sowing seed of valuable species and removing the low shade was to establish a young crop prior to the fellings. As explained in paragraph 45, however, these operations may now be considered to be unnecessary, and orders have been issued that no further work of the kind is to be undertaken at present. The areas which have been regenerated will, of course, be tended, and when fellings take place they will provide a most interesting means of comparison with areas where no preliminary sylvicultural work has been undertaken.

53. *Wynaad.*—Some 66 acres of clearings made in 1924 and sown that year were resown and 9 acres of similar clearings were planted with teak stumps. In the Begur range the area sown (26 acres) was entirely ruined by the excessively heavy rain in July 1924. In the Chedleth range the area sown in the year under report was burnt in March 1925, after which it was found that 30 per cent of the seedlings raised during the previous year were successful. A further area of some 214 acres in the Begur and Chedleth ranges was cleared to be regenerated during the current year.

54. *South Kanara —(North and South Mangalore).*—Sowings were continued. In North Mangalore 535 acres were sown with *Hopea* and in the Southern division 182 acres were sown partly with *Hopea* and partly with *Artocarpus hirsuta.* In the latter division 475 acres were resown with *Hopea* and *Artocarpus* in order to reduce the exceptionally wide espacement previously adopted. A crop of *Hopea* has now been established over an area of some 5,000 acres.

55. *Mudumalai.*—Improvement fellings which have been in progress for many years in these forests have effected practically nothing, and it was decided in 1922 that the only possible method to adopt was clear felling and sowing or planting. A clearing was accordingly made in 1922, but for various reasons no planting or sowing was possible until 1924 when 90 acres were planted with teak stumps and ten acres sown with *Pterocarpus Marsupium* and *Dalbergia latifolia.* The amount of success obtained was not conspicuous, chiefly because the stumps used were too small. The area was burnt in March 1925 and this has resulted in a considerable improvement.

(*c*) TENDING AND OTHER MISCELLANEOUS SYLVICULTURAL WORK.

56. In the Nalkur reserve of South Mangalore division where a very fine natural young crop of *Hopea parviflora* exists and only requires exposure to light to enable it to establish itself tending operations were continued. These consist in freeing the young seedlings from undergrowth and the low shade of the less valuable species; 1,150 acres were treated at a cost of some Rs. 900. Tending was also carried out over some 5,000 acres of young *Hopea*, the result of the sowings of the last five years in North and South Mangalore.

Plates Nos. 10 and 11 give some idea of the results of tending on the growth of young *Hopea.* Number 10 was taken in November 1921 and No. 11 in October 1924. In both pictures the man is standing in approximately the same place. A considerable amount of work was done in various districts with a view to freeing young sandal trees from climbers and other noxious growth.

PLATE No. 10.

[*Photo—November* 1921.

NATURAL REGENERATION OF *Hopea parviflora.*

PLATE No. 11.

NATURAL REGENERATION OF *Hopea parviflora*.

[*Photo—October* 1924.

(*d*) AFFORESTATION.

57. Work of this kind was practically confined to the kundahs in the Nilgiris. The sholas in this tract are fast being destroyed by fire, and with a view to protect the sources of the important rivers which rise there, sowing and planting of various species were carried out over some 16 acres. Frost however was severe and caused serious damage to the young seedlings, most of the *Alnus nepalensis* which was showing great promise being killed.

(*e*) RESEARCH AND EXPERIMENTS.

58. Research into the sylviculture of the species common to the evergreen forests was continued. An officer was also put on special duty to study the sylviculture of the deciduous forests of the Nallamalais (Kurnool district).

As stated in my review last year artificial regeneration in these forests is extremely expensive while natural regeneration is fairly plentiful and can probably be relied on for the establishment of a new crop.

V.—GENERAL ADMINISTRATION.

(i) ALTERATION IN AREA.

59. 43 square miles of reserved lands were finally settled under the Forest Act and about one square mile was added by re-computation of areas. About 80 square miles were disforested chiefly in order to provide lands for the extension of cultivation in Lower Gōdāvari (2 square miles), Nellore (2 square miles), North Vellore (2 square miles), Chingleput (3 square miles), South Salem (5 square miles). South Kurnool (6 square miles), Tinnevelly (8 square miles), Anantapur (15 square miles) and Guntūr (34 square miles).

The net result was a decrease of 35 square miles in the area of the reserved forests which at the end of the year was 18,921 square miles.

About 6 square miles were declared reserved lands while 43 square miles of reserved lands were excluded owing to the operation of forest settlement. The area of reserved lands therefore decreased from 348 to 311 square miles.

(ii) FOREST SETTLEMENT.

60. Settlement operations were in progress in respect of about 106 square miles, the principal forests concerned being the Mudumalai block in the Nilgiris (73 square miles) and the Jarugumalai block in the Central Salem division (12 square miles).

(iii) DEMARCATION.

61. 132 miles of boundaries were demarcated (chiefly in the Balliguda agency and in the Kollegal, Madura and Wynaad divisions) at a cost of Rs. 4,768. The demarcation of 23,586 miles of boundary lines was repaired. 776 miles of boundary lines remained to be demarcated at the close of the year.

(iv) SURVEY.

62. The Survey of India party traversed the boundary between the Bastar state and the Nugur taluk in the Upper Gōdāvari division to settle the dispute between the Bastar state and the Government, verified the trigonometrical stations in the reserved forests of the Bhadrachalam taluk in the same division and surveyed the Bellamkonda and Venkatayapalem reserves in the Sattenapalle range of the Guntūr division.

The Madras Survey party traversed the boundaries of the mangrove reserves in the Guntūr division.

The survey of roads, coupes, plantations, regeneration areas and portions of reserve boundaries was as usual done departmentally.

(v) ROADS AND COMMUNICATIONS.

63. The chief new work of the year was the Mount Stuart ghat road which was completed and opened to traffic in November 1924; the total cost incurred on it was Rs. 2,17,590. This road is now being continued into the heart of the Mount Stuart forests the working of which has hitherto been very seriously handicapped owing to the absence of efficient communications. The new road has reduced the cost of carting timber from top slip. 10 miles and 7 furlongs of the Komattiyeri-Patrakad road on the Javadis were constructed during the year at a cost of Rs. 11,968 and some 12 miles of minor roads were constructed in the Nallamalais of Kurnool at a cost of some Rs. 5,000. A sum of Rs. 10,769 was spent in metalling 2 miles and 6 furlongs of the Dhoni-Sappal road.

The total expenditure on new works amounted to Rs. 1,30,897 and on repairs to Rs. 1,11,178 as compared with Rs. 1,08,083 and Rs. 94,230 in the previous year, the increase being due to the activities of the Forest Engineering branch. 139 miles of new roads were made and 1,359 miles repaired as compared with 176 miles and 1,419 respectively in the previous year.

(vi) BUILDINGS.

64. The chief new works constructed during the year were at Olavakkode and in the Nilambur division. The saw mill buildings were constructed at Olavakkode at a cost of Rs. 40,950 and

in Nilambur a sum of Rs. 31,000 was spent partly on reconstruction of buildings destroyed in the Mappilla rebellion but chiefly on new buildings to accommodate the Amarampalam range staff at Pulliyil. In the Wynaad division some Rs. 16,000 was spent on quarters for officers in charge of the recently formed ranges. Miscellaneous buildings such as inspection bungalows, thana sheds, range offices and subordinates' quarters were constructed in various divisions.

The total expenditure on buildings amounted to Rs. 2·13 lakhs against 1·45 lakhs in the previous year.

Residential accommodation for District Forest officers is the most pressing need of the department to-day. Proposals were submitted to Government during the year for the construction of bungalows at certain stations; but on account of financial stringency Government directed that fresh proposals should be submitted during 1925–26. These have since been submitted.

(vii) OTHER WORKS.

65. A sum of Rs. 5,223 was spent during the year on improving the water-supply in grazing grounds in all the circles except the Sixth where work of this kind is not required. The public were permitted to repair existing water sources and to construct new wells and tanks at their own cost and this permission was availed of in the Guntūr, Nellore, Anantapur, Chittoor, South Vellore, and East Salem divisions. The ryots were also permitted to remove thorny undergrowth under departmental supervision in all grazing grounds and other reserves classified as 'ryots forests'.

The total sum spent during the year on the construction and repair of wells and on the improvement of water supply in forests and eradication of rank vegetation was Rs. 16,387 against Rs. 11,048 spent during the last year.

(viii) LIVESTOCK.

(*a*) *Elephants.*

66. The number of elephants in charge of the department at the beginning of the year was 104 valued at Rs. 3,42,350. Twenty-six elephants were captured, 2 were born in captivity, 14 died, 12 were sold and 1 which was past work was given away as a gift to a zamindar. The stud at the end of the year was 105 valued at Rs. 3,38,500. A sum of Rs. 10,350 was realized by the sale of 12 elephants, which were mostly calves and new captures.

Capturing operations were conducted in the South Coimbatore, the Nilgiris, the Wynaad and Nilambur divisions and resulted in 26 captures (viz., 5 in South Coimbatore, 9 in the Nilgiris, 5 in Wynaad and 7 in Nilambur) as compared with 19 in the previous year. Five captures died, 6 were sold for Rs. 4,550 and the remaining 15 valued at Rs. 25,800 are reported to be in good condition. The cost of the operations was Rs. 6,506 against Rs. 6,239 in the previous year.

(*b*) *Cattle.*

67. 224 buffaloes and bullocks valued at Rs. 19,274 were in stock at the beginning of the year. 17 died, 1 was killed by a tiger, 31 were sold, 6 were destroyed and 1 buffalo was given away. Two animals were purchased and the stock at the end of the year was 170 with a book value of Rs. 14,509.

(ix) BREACHES OF THE FOREST ACT.

68. The following table compares the forest offences of all kinds reported during the year with those of the previous year :—

Cases.	Injury to forests by fire.		Unauthorized felling.		Unauthorized grazing.		Other offences.		Total.		Average of the three years ending 1923-24.
	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	
Cases taken to court.	47	42	6,080	6,634	2,161	2,505	377	291	8,666	9,472	7,795
Cases compounded.	85	106	15,628	15,140	4,938	4,864	804	1,122	21,455	21,232	21,586
Cases undetected.	1,051	972	489	412	18	37	28	39	1,586	1,460	1,826
Total ..	1,183	1,120	22,197	22,186	7,117	7,406	1,209	1,452	31,706	32,164	31,207

Of the 32,420 cases disposed of during the year including the pending cases of the previous year, 11,196 were taken to court, 19,536 were compounded and 1,688 were withdrawn, the corresponding figures of the previous year being 30,205; 9,023; 19,719 and 1,463 respectively. Of the 11,196 cases disposed of by Magistrates, 7,682 ended in conviction and 3,514 in acquittal, the percentage, of acquittal being 31 per cent against 28 per cent in the previous year. The increase is chiefly due to the fact that the number of cases compounded after being taken on to the Magistrate's file was larger than in the previous year. The largest

number of acquittals occurred in the First Circle where out of a total of 1,204, 1,131 (or 94 per cent) were acquitted on payment of compounding fees, 21 cases were withdrawn by the District Forest Officers and only 52 cases (or 4·3 per cent) acquitted after actual trial.

Rs. 2,65,310 were realized as compounding fees against Rs. 2,81,310 in the previous year. The average fee per case and person was Rs. 13-9-3 and Rs. 6-8-1 respectively against Rs. 14-4-3 and Rs. 6-4-1 respectively in the previous year.

(x) PROTECTION FROM FIRE.

Calendar year 1924.

69. The system of early burning was continued in most of the more important forests. In the Sixth Circle it was generally effective. In the Nallamalais of Kurnool (Second Circle) it would appear that the importance of setting fire as soon as grass will burn was not realized. The cost incurred was under Re. 1-4-0 per square mile and in some cases even less than Re. 1 and from this it is clear that operations were not started until the grass was dry. The District Forest Officers responsible seem to have entirely misunderstood the system or to have left the work to their subordinates who (human nature being what it is) naturally wait until the grass is dry in order to facilitate their work. The result was very severe damage to the forest. It cannot be too forcibly impressed on the District Forest Officers that if the system of early burning is to prove a success personal supervision is necessary. It is essential that the District Forest Officers should camp in the forests during the whole of the season when the early burning operations are in progress.

The only instance in which it has been reported that the people took exception to the system of early burning was in the case of some reserves in Guntur where the burning deprived them of the opportunity of collecting thatch grass. The Conservator proposes to give up early burning in these reserves.

Early burning was carried out over about 4,060 square miles as against 3,855 square miles in the previous year. The area over which special protection was attempted was 4,269 square miles of which 82 square miles (1·9 per cent) were burnt, the figures for the previous year being 5,811 square miles, 320 square miles and 5·5 per cent respectively.

The expenditure during the official year 1924-25 was Rs. 53,935 against Rs. 59,929 in the previous year, the average expenditure

during the previous five years being Rs. 97,196. This very considerable reduction in expenditure has been brought about by the adoption of the system of early burning.

(xi) FOREST PANCHAYATS.

70. The work of the special panchayat staff was confined to the eleven districts noted in the margin as in the previous year. 127 square miles of forests were handed over to panchayats and the total area under panchayat management at the close of the year was 985 square miles managed by 507 panchayats. The Forest Panchayat Officer reports that 261 panchayats are working on sound lines. The work of 82 panchayats was unsatisfactory; this is attributed to the excessive areas of the Panchayat Inspectors' charges and their consequent inability to devote adequate attention to individual panchayats. There was, however, an improvement in the protection of the forests and ryots are reported to have evinced keener interest in their management, limiting the number of cattle allowed to graze and instituting temporary closure to grazing. Proposals for the expansion of the staff were sanctioned by Government after the close of the year. Owing to the transfer of reserves to panchayat management the two forest divisions of Kistna and Chingleput were abolished and proposals for the abolition of the Bellary division are under consideration. The control of the special panchayat staff and of the reserves under panchayat management was transferred to the Land Revenue department after the close of the year.

North Arcot.	Bellary.
South Arcot.	Coimbatore.
Chingleput.	Trichinopoly.
Salem.	Guntur.
Cuddapah.	Kistna.
Chittoor.	

In Kurnool, Coimbatore, Tinnevelly, Madura, Nellore and Ramnad districts forty panchayats working under the control of the Revenue department administered an area of 73 square miles.

The forest village system was in force during the year in certain reserves in the South and West Vellore, East and South Salem, North and South Coimbatore and North and South Mangalore divisions. The system on the whole worked satisfactorily. The best results were obtained in the South Vellore division as was the case in the previous year. The panchayats of this division carried out sowing operations as usual and worked fuel coupes satisfactorily; and a feature of the year was the election of a certain number of Adi-Dravidas to work on some of the panchayats. Annual darbars for the Tiruvannamalai and Gingee panchayats were held during the year and refunds of grazing fees were distributed.

(xii) FOREST COLLEGE.

71. Mr. W. G. Dyson, M.C., was the Principal of the College from 1st April 1924 to 19th July 1924, when he was relieved by Mr. C. R. F. Williams, M.C., who was in charge for the rest of the year. Twenty-four students passed out of the College in 1925; of these, eight were from Bombay, five from Central Provinces, four from Ceylon, two from Bihar and Orissa and one from Keonjahar state, while four were Madras Government stipendiary students. One Bombay and two Madras students received Honours certificates. Eighteen were granted higher standard certificates and the remaining three obtained lower standard certificates. One student from Ceylon failed. The reports of the examiners showed that the results of the examinations were satisfactory.

(xiii) VERNACULAR TRAINING SCHOOLS.

72. Vernacular training schools were held in the I, III (old), IV and VI Circles. The results were satisfactory. Five students from Bihar and Orissa were trained in the school held in the Ganjam district.

(xiv) FINANCE.

73. The total gross revenue during the year was Rs. 55·70 lakhs as against Rs. 54·16 lakhs in the previous year. The expenditure debited to the Forest department (including a loss of Rs. 35,054 by exchange transactions with England) was Rs. 51·18 lakhs as against Rs. 46·94 lakhs in the previous year. The result was a surplus of Rs. 4·52 lakhs as against Rs. 7·22 lakhs in the previous year.

The Forest College worked at a loss of Rs. ·12 lakh. General Direction cost Rs. 1·08 lakhs, the Engineering branch Rs. 2·01 lakhs and the Forest Panchayat staff Rs. ·33 lakh.

74. There was a decrease of Rs. 2·39 lakhs in the revenue realized on produce removed by contractors and purchasers which was more than counterbalanced by the increase (Rs. 3·63 lakhs) in revenue from produce removed by Government agency, sandalwood contributing Rs. 2·18 lakhs and timber Rs. ·25 lakh to this increase.

75. Expenditure on works (including capital expenditure) was higher than during the previous year by Rs. 3·79 lakhs. The increase is a natural result of the increased attention paid to development; the Olavakkode saw mill cost Rs. 1·20 lakhs, the expenditure on timber extraction rose by Rs. ·91 lakh, that on buildings by Rs. ·55 lakh and that on roads by Rs. ·42 lakh. The expenditure on establishments rose by Rs. ·43 lakh. This is due to increments in

the time-scale and to the pay of the Chief Forest Engineer, Logging Engineer, the Forest Engineer in charge of Chenat Nair and the Olavakkode mill staff. If these items are omitted (the pay of the Chief Forest Engineer and Logging Engineer being also omitted from the figures of the previous year), there was a net decrease of Rs. ·22 lakh in the cost of establishments. This was due to a considerable reduction in the cadre of Foresters which was to some extent rendered possible by the transfer of reserves to panchayats. It is satisfactory to note that in spite of increased development during the year which accounted for an increase on works and establishment of Rs. 4·22 lakhs the surplus was only Rs. 2·70 lakhs less than that of the previous year. The subjoined trading account exhibits the financial position of the department for the year under review and shows the net profit to have been Rs. 5·75 lakhs.

I.—Trading Account.

	Lakhs. Rs.	Lakhs. Rs.		Lakhs. Rs.	Lakhs. Rs.
Stock of timber, etc., in depots on 31st March 1924.. ..	4·91	..	Stock of timber, etc., on 1st April 1925	4·98	..
Stock of tools and plant on 31st March 1924	5·04		Stock of tools and plant on 1st April 1925	5·09	
		9·95			10·07
Revenue outstanding on 31st March 1924		4·16	Revenue outstanding on 1st April 1925		4·28
Working expenditure of the year		48·80	Sales of the year		55·51
Good debts (advances) on 31st March 1924		·49	Good debts (advances) on 1st April 1925		·27
Revenue written off or cancelled		·24			
Gross profit		6·49			
Total ..		70·13	Total ..		70·13

II.—Interest.

	Lakhs. Rs.
(1) Capital expenditure up to the end of 1923–24 ...	5·82 *
Do. do. 1924–25 ...	2·38
	8·20
(2) Interest on expenditure at 6 per cent	·49

III.—Depreciation.

(3) (*a*) Depreciated value of timber in stock on 1st April 1925	Nil.
(*b*) Depreciated value of tools and plant at 5 per cent.	·25

IV.—Profit and Loss Account.

Total of tables II and III (·49+·25)	·74
Gross profit as per table I	6·49
Net profit ...	5·75

* Expenditure under "52-A, Capital Outlay on Forests" for the years 1921-22, 1922-23 and 1923-24.

(XV) GENERAL.

76. The Committee appointed to investigate forest grievances in the Kurnool district submitted its report during the year and such of its recommendations as the Government accepted were given effect to.

K. RAMAN NAYAR,
for *Chief Conservator of Forests.*

APPEN

APPENDIX A.—Comparative statement of number and origin of

District.	A. Fires caused by accident or through carelessness in burning fire lines.		B. Fires entering forests by crossing exterior fire lines.		C. Fires beginning inside the							
					Owing to carelessness or accident							
					By workmen engaged in the forests or by purchasers of forest produce and by hay cutters.		By villagers, travellers, etc., passing through the forests.		By railway engines.		By lightening or by fire balloons.	
	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
First Circle.												
Ganjām	..	..	2	28	1	2,000	32	13,680	..		..	..
Vizagapatam ..	1	4	..	..	1	110	9	10,150	..	..	..	..
Godāvari, Upper.	1	4	20	1,348	..	..	11	682	..	..	..	..
Do. Lower..	..	..	6	236	..	..	33	9,601	..	..	..	..
Guntūr	..	..	..	..		..	12	1,028	..	.	..	..
Nellore	..	..	..	..	1	37	12	1,088	..	..	..	..
Total ..	2	8	28	1,612	3	2,147	109	36,229	..	..	..	..
Second Circle.												
Bellary	18	3585	..	..	..	..	20	4,271	3	48	..	..
Anantapur ..	..	..	..	..	..	..	..	..	..	..	..	..
Kurnool, East ..	..	..	1	210	1	17	..	..	..	..	..	..
Do. South ..	3	945	10	4,069	1	45	7	3,702	4	2,125	..	..
Do. West ..	..	..	..	..	..	.	..	..	..	..	..	..
Cuddapah, North .	..	..	13	1,793	..	..	3	120	..	..	..	..
Do. South..	..	..	..	..	..	..	..	..	..	..	..	..
Do. West ..	..	..	2	350	1	20	3	161	..	..	..	..
Chittoor	2	162	..	..	..	..	8	121	.	..	..	..
Total ..	23	4,692	26	6,422	3	82	41	8,375	7	2,173	..	..
Fourth Circle.												
Chingleput ..	..	..	..	..	..	..	..	..	..	..	..	..
Vellore, North ..	1	160	..	..	4	79	4	118	..		..	..
Do. South ..	1	7	2	585	1	20	5	166	..	..		..
Do. West ..	..	..	..	..	.	..	1	25	..	..	..	..
Salem, East ..	..	..	..	..	..	..	3	17	..	..	..	..
Do. North ..	..	..	..	.	..	..	7	1,004	..	..	..	..
Do. Central ..	1	15	..	..	..	..	5	870	.	..	..	..
Do. South ..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	3	182	2	585	5	99	25	2,200	.	..	..	..

DICES.

fires that occurred during the calendar year 1924.

reserves or fire-traced areas.											
By intentional firing								Causes unknown.		Total of A, B and C and causes unknown.	
In order to obtain new grass.		In order to turn out game or to reduce cover.		Maliciously fired.		Total.					
Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
11	964	..	..	3	900	47	17,544	8	121	57	17,693
..	..	..	..	..	..	10	10,260	3	130	14	10,394
..	..	5	4,850	1	600	17	6,132	..	..	38	7,484
..	..	..	..	..	..	33	9,601	15	805	54	10,642
..	..	..	..	..	..	12	1,028	1	(a)	13	1,028
..	..	..	..	1	1	14	1,126	2	62	16	1,188
11	964	5	4,850	5	1,501	133	45,691	29	1,118	192	48,429
12	7,243	..	..	..	..	35	11,562	..	..	53	15,147
..	..	..	..	..	..	..	..	..	..	..	..
1	1,171	..	..	..	..	2	1,188	26	6,726	29	8,124
1	700	..	..	..	..	13	6,572	..	..	26	11,686
..	..	..	..	..	..	..	..	15	5'8	15	518
10	1,827	..	..	10	941	23	2,888	1	120	37	4,801
..	..	..	..	10	366	10	366	1	340	11	706
9	440	..	..	1	400	14	1,021	1	80	17	1,451
11	463	..	..	..	..	19	584	16	1,179	37	1,925
44	11,844	..	..	21	1,707	116	24,181	60	8,963	225	44,258
..	..	..	..	..	..	..	..	3	31	3	31
6	419	..	..	..	..	14	616	26	1,794	41	2,570
14	608	..	..	2	54	22	848	17	368	42	1,808
..	..	..	..	15	361	16	386	8	2,228	24	2,614
2	97	..	..	..	..	5	114	11	214	16	328
8	1,245	..	..	..	..	15	2,249	29	14,295	44	16,544
2	152	1	20	5	408	13	1,450	23	2,075	37	3,540
..	..	..	..	..	..	..	..	35	1,296	35	1,296
32	2,521	1	20	22	823	85	5,663	152	22,301	242	28,731

(a) Less than an acre.

Appendix A.—Comparative statement of number and origin of

District.	A. Fires caused by accident or through carelessness in burning fire lines.		B. Fires entering forests by crossing exterior fire lines.		C. Fires beginning inside the							
					Owing to carelessness or accident							
					By workmen engaged in the forests or by purchasers of forest produce and by hay cutters.		By villagers, travellers, etc., passing through the forests.		By railway engines.		By lightning or by fire balloons.	
	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Fifth Circle.												
Kollegal ..	..	..	1	50	..	..	4	1,445	..	..	..	..
Coimbatore, North.	..	..	1	25	..	..	10	4,110	..	..	..	..
Do. South.	1	3	..	..	..	..	..	..	..	..	..	..
Madura	..	.	..	..	1	3	.	..	..	..	..	..
Tinnevelly ..	..	..	6	446	2	8	2	200	..	..	2	150
Total ..	1	3	8	521	3	11	16	5,755	..	..	2	150
Sixth Circle.												
Mangalore, North.	3	1	3	71	..	..	6	108	..	..	..	..
Do. South.	1	50	9	575	..	..	1	300	..	..	..	..
Wynaad	..	..	3	701	..	..	..	..	..	..	..	..
Nilambur ..	3	45	..	..	..	..	..	..	..	..	..	..
The Nilgiris ..	..	..	..	..	..	..	34	1,710	..	..	..	..
Palghat	5	233	2	40	..	..	1	30	..	..	..	..
Total ..	12	329	17	1,387	..	..	42	2,148	..	..	..	..
Parlakimedi maliahs.	..	..	6	189	..	..	10	674	..	..	..	..
Grand total, Presidency.	41	5,214	87	10,716	14	2,339	243	55,381	7	2,173	2	150

fires that occurred during the calendar year 1924—*cont.*

reserves or fire-traced areas.											
By intentional firing.						Total.		Causes unknown.		Totals of A, B and C and causes unknown.	
In order to obtain new grass.		In order to turn out game or to reduce cover.		Maliciously fired.							
Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
2	540	5	1,850	..	..	11	3,835	6	2,690	18	6,575
..	..	..	..	..	..	10	4,110	55	9,617	66	13,752
..	..	..	..	1	100	1	100	..	..	2	103
2	60	..	..	53	1,669	56	1,732	59	3,780	115	5,512
6	599	..	..	26	3,427	38	4,454	..	..	44	4,900
10	1,199	5	1,850	80	5,266	116	14,231	120	16,087	245	30,842
..	..	1	25	3	66	10	199	2	25	18	296
..	..	..	..	12	553	13	853	20	1,660	43	3,138
1	200	..	..	..	..	1	200	6	540	10	1,441
..	..	..	..	..	..	..	..	..	..	3	45
..	..	..	..	2	61	36	1,771	3	425	39	2,196
..	..	..	..	3	105	4	135	6	315	17	723
1	200	1	25	20	785	64	3,158	37	2,965	130	7,839
..	..	..	..	..	..	10	674	13	1,991	29	2,854
98	16,728	12	6,745	148	10,082	524	93,598	411	53,425	1,063	162,963

APPENDIX B.—Comparative statement of impounded cattle during 1924-25.

Districts.	Number of cattle impounded.		Average for three years ending 1923-24.
	1923-24.	1924-25.	
First Circle.			
Ganjam	751	2,812	819
Vizagapatam	781	192	962
Godavari, Upper	845	659	757
Do. Lower	2,609	2,066	2,266
Guntur	21,243	23,419	17,904
Nellore	(a) 9,412	10,422	10,552
Total ..	35,641	39,570	33,260
Second Circle.			
Bellary	9,081	5,356	8,584
Anantapur	8,071	5,582	11,496
Kurnool, East	5,958	7,808	5,556
Do. South	9,058	10,413	8,088
Do. West	7,573	7,015	7,523
Cuddapah, North	4,361	5,984	3,682
Do. South	1,598	1,778	1,517
Do. West	6,761	6,593	7,296
Chittoor	6,640	5,626	6,999
Total ..	59,101	56,155	60,741
Fourth Circle.			
Chingleput..	2,294	1,747	2,329
Vellore, North	6,428	8,751	7,962
Do. South	5,260	4,807	5,931
Do. West	2,010	3,311	3,411
Salem, East	5,126	4,973	6,942
Do. North	1,727	1,276	1,418
Do. Central	3,664	2,055	3,283
Do. South	5,377	2,980	4,421
Total ..	31,886	29,900	35,097
Fifth Circle.			
Kollegal	2,383	4,115	3,640
Coimbatore, North	3,514	6,954	4,035
Do. South	398	963	520
Madura	8,957	7,380	7,211
Tinnevelly	2,225	2,371	2,720
Total ..	17,477	21,783	18,126
Sixth Circle.			
Mangalore, North	304	149	236
Do. South	580	232	627
Wynaad	145	199	137
Nilambur	Nil.	59	Nil.
The Nilgiris	601	865	791
Palghat	972	429	1,037
Total ..	2,602	1,933	2,828
Grand total, Presidency ..	146,707	149,341	150,052

(a) Revised figure.

ANNUAL FORM No. 65.

Forest Department, Madras Presidency.

Area of reserved forests and reserved lands during 1924–25.

ANNUAL FORM

Forest Department.

Area of reserved forests and reserved

Districts.	Area of reserved forests.					
	Area on 1st April 1924.		Added during the year.	Excluded during the year.	Area on 31st March 1925.	
	Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
First Circle.						
Ganjam	400,104	625	..	..	400,104	625
Vizagapatam ..	196,981	308	..	(*a*) 730	196,251	307
Godavari, Upper ..	531,434	830	..	..	531,434	830
Do. Lower ..	365,966	572	..	(*a*) 1,520	364,446	569
Guntur	614,644	960	..	(*a*) 21 87 (*b*) 142	592,615	926
Nellore	459,191	717	(*c*) 7,162 (*b*) 358	(*a*) 1,408 (*b*) 67	465,236	727
Total ..	2,568,320	4,012	7,520	25,754	2,550,086	3,984
Second Circle.						
Bellary	359,752	562	..	2	359,750	562
Anantapur	466,271	729	..	(*a*) 9,312	456,959	714
Kurnool, East ..	620,767	970	..	..	620,767	970
Do. South ..	493,055	770	..	(*a*) 3,937	489,118	764
Do. West ..	536,983	839	..	1	536,982	839
Cuddapah, North ..	381,457	596	411	71	381,797	597
Do. South ..	295,614	462	..	180	295,434	462
Do. West ..	477,595	746	..	47	477,548	746
Chittoor	526,772	823	..	75	526,697	823
Total ..	4,158,266	6,497	411	13,625	4,145,052	6,477
Fourth Circle.						
Chingleput	287,967·29	449·95	(*i*) 2 36	(*j*) 1,354·18	286,615·47	448
Vellore, North ..	127,423·92	199 10	..	(*r*) 1,735·29	125,688·63	196
Do. South ..	307,002·00	480	Nil.	..	307,002	480
Do. West ..	244,516 51	382	..	(*a*) 32 88	244,483·63	382
Salem, East	359,871·00	562	(*b*) 3,692	(*o*) 33·50	363,526·50	568
Do. North ..	333,793·00	522	..	(*d*) 374·00	333,419·00	521
Do. Central ..	262,369·00	410	(*e*) 452	(*f*) 100·00	(*e*) 262,721	410
Do. South ..	222,259·00	347	(*g*)13 145	(*h*) 2,989·00	232,415·60	363
Total ..	2,145,201·72	3,352·05	17,291·36	6,621·85	2,155,871·83	3,368·00

First circle—(*a*) Disforestation. | (*b*) Rectification of area.

Second circle—(*a*) Disforested for extension of cultivation and for communal purposes.

Fourth circle—(*a*) 2 04 acres, exclusion due to correcting Bargur reserve boundary.

30·84 acres, exclusion due to inner Javadis reserved forest as per erratum published in page 627 of *Fort St. George Gazette*, dated 3rd June 1924.

(*b*) Declared reserved forest in notification No. 229, dated 31st July 1924.

(*c*) Disforested 3 acres in Narimanam reserved forests in notification No. 331, dated 8th Nov. 1924.

Disforested 33·50 acres in Thombakkal reserved forests in notification No. 113, dated 1st Apr. 1924.

(*d*) Disforested 374·00 acres in Pane reserved forests in notification No. 75, dated 7th Mar. 1925.

(*e*) Added 208·25 acres in Karuvattuparai reserved forest due to actual survey and revised notification No. 272, dated 4th Sep. 1924.

(*f*) Disforested 64·25 acres in Karuvattuparai reserved forest due to actual survey and revised notification No. 272, dated 4th Sep. 1924.

(*g*) 244 acres transferred to reserved forest in notification No. 216, dated 10th Feb. 1925.

(*f*) Excluded 36 acres in Mukkanur reserved forest due to actual survey notification No. 228, dated 31st July 1924.

(*g*) Transferred to reserved forest in notification No. 196, dated 18th June 1924.

(*h*) Disforested 86 acres in Maramareddipalaiyam reserved forest in notification No. 57, dated 19th Feb. 1924.

Disforested 2,903 acres of Kovilur, Edayathangudi and Kilkolathur reserved forests in notification No. 220, dated 22nd July 1924.

This includes 58·60 acres excluded at settlement.

No. 65.

Madras Presidency.

lands during 1924-25.

Area of reserved lands.						Total area of reserved forests and reserved lands in square miles.
Area on 1st April 1924.		Added during the year.	Excluded during the year.	Area on 31st March 1925.		
Acres	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.	
(8)	(9)	(10)	(11)	(12)	(13)	(14)
..	..	..	..	..	..	625
1,313	2	..	..	(c) 1,313	2	309
14		..	..	(d) 14		
..	..	..	..	..	..	830
..	..	..	..	..	..	569
381	1	..	..	(d) 381	1	927
7,162	11	(f) 152	(e) 7,162	(f) 152	..	727
8,870	14	152	7,162	1,860	3	3,987
89	·14	..	..	89	·14	562
..	..	..	..	..	..	714
..	..	..	..	..	..	970
..	..	1,738	..	1,738	2·7	767
..	..	..	..	..	..	839
361	·56	..	361	..	..	597
132	·2	..	..	132	·2	462
..	..	..	..	..	..	748
..	..	21	..	21	..	823
582	1·0	1,759	361	1,980	3·0	6,480
..	..	..	..	..	..	196 00
..	..	26·35	..	26·35	..	448·00
4·00	·01	..	..	4 00	·01	480·01
..	..	..	..	..	..	382·00
7,482	12·00	..	(b) 3,692	3,790	5·92	574·92
..	..	(s) 1,975	..	1,975	3	524·00
7,884	12·00	..	(s) 244	7,640	11 94	421·94
17,414 00	27·21	(l) 2·84	(g) 13,203·60	4,213·24	6·67	369·67
32,784·00	51·22	2,004·19	17,139·60	17,648·59	28	9,396·00

First circle—{(c) Leased forests. (e) Transferred to reserved forests. (d) Notified under section 26 of the Forest Act. (f) Notified under section 4.

Fourth circle—(i) 2·36 acres, addition due to erratum published at page 519 of the *Fort St. George Gazette*, dated 17th Mar. 1925.

(j) Excluded 8·48 acres in Ambur reserved forest erratum published at page 1415 of the *Fort St. George Gazette*, dated 25th Nov. 1924.

Disforested 947·37 acres in Nambedu reserved forest, in notification No. 132, dated 30th Apr. 1924.

Disforested 397·40 acre in Nambedu extension reserved forest in notification No. 132, dated 30th Apr. 1924.

Disforested 0·41 acre in Vanniveda reserved forest in notification No. 91, dated 21st Mar. 1925.

Disforested 0·52 acre in Chargallu reserved forest in notification No. 271, dated 29th Aug. 1924.

(l) Added in notification No 285, dated 23rd September 1924, notified under section 4.

(r) Disforested Gundalur reserved forest 137 acres in notification No. 354, dated 13th Dec. 1924.

Disforested Sengundram reserved forest 40·0 acres in notification No 355, dated 13th Dec. 1924.

Disforested Sirukandram A and B reserved forest 66 acres in notification No. 356, dated 13th Dec. 1924.

Disforested Madambakkam reserved forest 770·29 acres in notification Nos. 265 and 266, dated 27th Aug 1924.

Disforested Tirumullavayal reserved forest 64·00 acres in notification No. 19, dated 18th Jan. 1924.

Disforested Pulrambakkam reserved forest 298·00 acres in notification Nos. 352 and 353, dated 13th Dec. 1924.

(s) Added Ayyur Extension No. II reserved forest 325 acres in notification No. 9, dated 17th Dec. 1924.

Added Sameri reserved forest 1,650 acres in notification No. 10, dated 28rd Dec. 1924.

Area of reserved forests and reserved

Districts.	Area of reserved forests.					
	Area on 1st April 1924.		Added during the year.	Excluded during the year.	Area on 31st March 1925.	
	Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fifth Circle.						
Kollegal	602,627	(a) 942	(b) 14	..	602,641	942
Coimbatore, North ..	493,617	771	7	..	493,624	771
Do. South ..	289,611	453	..	(d) 25	289,586	453
Madura	422,525	660	9 / (c) 70	..	422,604	660
Tinnevelly ..	272,312	(a) 425	..	(d) 5,155	267,157	417
Total .	2,080,692	3,251	100	5,180	2,075,612	3,243
Sixth Circle.						
Mangalore, North .	229,902	359	..	..	229,902	359
Do. South ..	280,888	439	..	..	280,888	439
Wynaad	168,423	263	..	(a) 5	168,418	263
Nilambur	68,947	108	..	..	68,947	108
Palghat .. .	168,127	263	..	(d) 17	168,110	263
The Nilgiris ..	(f) 263,664	412	(e) 3,000	..	266,664	417
Total ..	1,179,951	1,844	3,000	22	1,182,929	1,849
Parlakimedi maliahs.	..	..	..	..	..	..
Grand total, Presidency.	12,132,431	18,956	28,322	51,203	12,109,434	18,921

Fifth circle—
(a) Due to adoption of correct equivalent in square miles for area in acres in column (2).
(b) Due to rectification of reserve boundary.
(c) Transferred to reserved forests.
(d) Disforested.
(e) Due to actual computation of Kokkuparai reserve by Survey of India, Calcutta.

Sixth circle—
(a) Disforested.
(b) Added to reserved forests, section 4.
(e) Botanical gardens at Manantoddy.

lands during 1924-25—*cont.*

Area of reserved lands.						Total area of reserved forests and reserved lands in square miles.
Area on 1st April 1924.		Added during the year.	Excluded during the year.	Area on 31st March 1925.		
Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.	
(8)	(9)	(10)	(11)	(12)	(13)	(14)
..	..	..	..	..	..	942
7	..	..	(c) 7	..	..	771
..	..	..	..	..	..	453
228	..	..	(c) 9	219	..	660
..	..	..	..	..	..	417
235	..	..	16	219	..	3,243
..	..	..	..	..	..	359
..	..	(b) 0·48	..	..	..	439
(c) 22	..	..	..	(c) 22	..	263
12,252	19	..	..	(b) 12,252	19	127
..	..	..	..	..	..	263
(h) 52,472	82	..	..	49,472	775	499
2,878	(g) 5	..	(e) 3,000	2,878	(g)	
67,624	106	0·48	3,000	64,624	101	1,950
112,711	176·02	..	103	112,608	176	176
222,806	348·24	3,915	27,782	198,939	311	19,232

Sixth circle—

(*d*) Disforested.

(*e*) Added to reserved forest.

(*f*) Please see this office Ref. No. D. 2822/24-2, dated 20th December 1924.

(*g*) Toda patta lands.

(*h*) Leased forests.

Appendix to Form No. 65.

Details of classification of forests in the several districts for 1924–25.

District.	Area of reserved forests in square miles.	Details of classification in square miles.						Unclassified.
		I	II	III	IV	V	VI	
First Circle.								
Ganjam	625	388	230	(a) ..	7	..	..	..
Vizagapatam ..	307	211	72	(a) ..	7	17	..	..
Godâvari, Upper ..	830	(b) 218	(b) 612	..	..	..	..	..
Do. Lower ..	569	97	286	..	141	45	..	..
Guntûr	926	22	54	1	671	179	..	..
Nellore	727	183	164	4	324	52	..	..
Total ..	3,984	1,119	1,417	5	1,150	293	..	..
Second Circle.								
Bellary	562	36	257	13	121	132	..	3
Anantapur	714	..	300	..	365	49	..	..
Kurnool, East ..	970	280	333	..	231	126	..	..
Do. South ..	764	281	300	..	181	2	..	..
Do. West ..	839	487	288	12	58	6	..	..
Cuddapah, North ..	597	569	..	3	25	..	..	..
Do. South ..	462	430	2	..	30	..	..	..
Do. West ..	746	277	219	1	212	37	..	..
Chittoor	823	266	329	1	17	209	1	..
Total ..	6,477	2,626	2,028	18	1,240	561	1	3
Fourth Circle.								
Vellore, South ..	480	31	392	..	..	57	..	..
Do. West ..	382	22	343	..	3·00	(a) 7	(a) 7	0·03
Salem, East	(b) 568	317	134	..	.	62	(i) 4·9	5·77
Do. North ..	(c) 521	..	(c) 419	..	102	..	..	..
Do. Central ..	410	87	213	1·00	89	20	..	..
Do. South ..	(f) 363	235	55	..	..	73	(e) ..	..
Vellore, North ..	(g) 448	67	319	4·00	7	(g) 50	1·00	..
Chingleput	196	..	40	..	(h) 140	16	..	..
Total ..	3,368	759	1,915	5·00	341	285	5·7	6
Fifth Circle.								
Kollegal	942	755	140	..	43	4	..	..
Coimbatore, North ..	771	555	171	..	45	..	..	..
Do. South ..	453	375	62	..	11	5	..	..
Madura	660	247	398	..	..	15	..	..
Tinnevelly	417	194	196	..	14	9	4	..
Total ..	3,243	2,126	967	..	113	33	4	..

First circle—

(a) Less than half a square mile.

(b) Previous year's figures rectified.

Fourth circle—

(a) Difference is due to the transfer of 520 acres—Mannurmangalam B block from class VI to V.

(b) Due to addition of 6 square miles—Pallipatti extension from section 4 to 16.

(c) Difference is due to the disforestation of portion of Pane reserved forest.

(e) Class VI reserves were disforested in the reserves noted against item (h).

(f) Includes 20 square miles of Paithur reserved forest notified under section 16 and also due to disforestation of 4 suqare miles of class VI reserves.

(g) Disforested 2 square miles in class V reserves.

(h) Do. 3 do. under class IV.

(i) Includes provisional reserves class IV area of 89 square miles. Difference is due to transfer of Porasakurichi reserved forest from class VI (provisional class IV) to class V.

Details of classification of forests in the several districts for 1924-25—*cont.*

District.	Area of reserved forests in square miles.	Details of classification in square miles.						Unclassified.
		I	II	III	IV	V	VI	
Sixth Circle.								
Mangalore, North ..	359	286	35	1	37	..	..	..
Do. South ..	439	254	67	..	118	..	.	..
Wynaad	263	226	37	..	..	..	..	..
Nilambur	108	100	8	..	..	..	..	..
Palghat	263	151	82	..	23	7	..	..
The Nilgiris	417	355	57	3	2	..	..	..
Total ..	1,849	1,372	286	4	180	7	..	..
Grand total, Presidency.	18,921	8,002	6,613	32	3,024	1,179	62	9

ANNUAL FORM No. 66.

Forest Department, Madras Presidency.

Progress made in forest settlements during the year 1924-25.

Forest district.	Name of forest.	Area in square miles.			Cost during the year.		Entire cost per square mile of area finally settled.	Government notification of settlement.	
		Finally settled during the year.	In hand at the commencement of the year.	Taken in hand during the year.	In forest accounts.	In other accounts.		Number.	Date.
	First Circle.								
Nellore ..	Compartment No. 29 of Rapur Veligondas ..	11·190	..	..	..	..	..	160	24th Mar. 1924.
	Sriharikota reserve	0·005	..	..	..	..	..	156	10th May 1924.
	Kesavaram inclusions II, IV, VI and VIII ..	..	..	0·07	..	..	..	..	..
	Chinalaterpi inclusions I, II, IV, VI, VIII, IX and XI.	..	..	0·14	..	..	..	..	..
	Sangam inclusions I, IV, VIII, X, XII and XIV.	..	..	0·03	..	..	..	..	..
	Total ..	11·195	..	0·24	..	..	..	..	
	Second Circle.								
Kurnool South.	North Valigonda additions III and IV ..	..	..	2·7	..	..	..	306	18th Oct. 1924.
Cuddapah, North.	Kothapalle-Dasaripalle Extension	0·56	..	..	32	..	..	7	20th Dec. 1924.
Cuddapah, South.	Seshachalam addition	..	·020	..	..	..	..	640 Dev.	5th May 1922.
	Do. Extension addition	..	·003	..	..	..	..		
	Buduguntapalle addition	..	·002	..	..	..	..		
	Do. Extension addition	..	·005	..	..	..	..		
	Chitvel addition	..	·060	..	..	..	..		
	Salivendla addition	..	·100	..	..	..	..		
Chittoor ..	Palamaner Reserved Forest addition	..	..	0·03	45	..	..	341	1st Dec. 1924.
	Total ..	0·56	·19	2·7	77	..	..	..	

	Fourth Circle.								
Vellore, South.	Sorakolattur Reserved Forest addition ..	..	0·006	..	..	..	..	38	3rd Feb. 1923.
Do. West..	Nil	..	..	..	..	..	..	..	..
Salem, East ..	Pallipatti Extension	5·77	5·77	..	..	..	..	229	31st July 1924.
	Arana and Thirthagiri	..	5·920	..	..	..	..	..	..
Do. North..	Aiyur Extension No. 2	..	..	0 500	..	..	..	9	17th Dec. 1924.
	Sameri Block	..	..	2·500	..	..	..	10	23rd Dec. 1924.
Do. Central.	Kanjeri Extension	0·38	0·38	..	..	..	..	216	10th Feb. 1925.
	Jarugumalai	..	11·940	..	..	..	..	..	..
	Paithur Reserved Forest	20·53(*a*)	20·53	..	..	..	..	196	18th June 1924.
	Atturmanmalai	..	6·490	..	..	..	..	76	17th Feb. 1920.
Do. South..	Additions to Karavalli Kombai	..	0·030	..	..	..	..		
	Do. Jambuthu	..	0·003	..	..	..	..	352	9th Dec. 1922.
	Do. Shelur	..	0·060	..	..	..	..		
	Do. Vengamudi	..	..	0·004	..	..	..	285	23rd Sep. 1924.
Vellore, North.	Karuthamalai addition	..	..	0 040	..	..	..	282	13th Sep. 1924.
Chingleput ..	Nil	..	..	..	..	..	..	..	..
	Total ..	26·68	51·129	3·044	..	..	..	..	
	Fifth Circle.								
Coimbatore, North.	Addition to Jaccanari Reserve	0·001	0·001	..	..	..	..	143	5th May 1924.
Madura ..	Do. to Tiger Shola Reserve	..	0·343	..	..	..	..	..	..
	Do. to Kodavanar Reserve	0·013	0·013	..	..	..	..	195	13th June 1924.
	Total ..	0·014	0·357	..	.	..	..	..	
	Sixth Circle.								
The Nilgiris ..	Mudumalai and Kumbarakolli Reserved Forest.	..	74·69	..	..	..	..	..	..
	Addition to Nudugula Reserved Forest ..	..	0·06	..	..	..	..	..	..
	Do. to Nadukadahulla Reserved Forest..	..	0·27	..	..	..	..	..	..
	Do. to Attakadu Shola Reserved Forest..	..	0·05	..	..	..	..	..	..
	Do. to Doddakavu Reserved Forest ..	..	0 08	..	..	..	..	..	..
	Do. No. III to Kodanad Valley Shola Reserved Forest.	..	0·13	..	..	..	..	..	..
	Do. to II Madanad Reserved Forest .		0·16	..	.	..	..	..	.
	Do. to Segur Reserved Forest .. .	4·69	..	..	..	..	..	158	19th May 1924.
Mangalore, South.	Mandekole addition	..		·0008	.	..	..	357	17th Dec. 1924.
	otal ..	·9	75·44	·0008	..	..	..	..	
	Grand total, Presidency ..	43·139	127·116	5·9848	77	..	.	..	

(*a*) Difference in area is due to correct computation.

ANNUAL FORM No. 67.

Forest Department, Madras Presidency.

Record of demarcation and maintenance of boundaries during 1924-25.

District.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries still to be demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
								On new work.	On repairs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
First Circle.	MILES.	MILES.	MILES.	MILES.	MILES	MILES.	MILES.	RS.	RS.
Ganjam	..	(a) 1,375	..	1,375	..	80	1,455	..	(c) 10
Vizagapatam ..	..	(a) 564	..	564	..	19	583	..	..
Godavari, Upper ..	..	(b) 595	..	595	15	151	761	..	(c) 23
Do. Lower ..	..	932 (d) — 4	..	928	20	81	1,029	..	(c) 17
Guntur	4	(a) 1,735	..	(e) 1,739	..	(e) 287	(e) 2,026	..	(c) 17
Nellore	7	(a) 1,913	47 (d) —7	1,960	..	88	2,048	..	+ 25 (c) 30 — 20
Total ..	11	7,110	40	7,161	35	706	7,902	..	97 + 5
Second Circle.									
Bellary	..	(a) 946 (b) 514	..	1,460	..	..	1,460	(d) 21	..
Anantapur	..	(a) 1,182 (c) 23	458	1,663	..	34	1,697	..	188
Kurnool, East ..	..	(a) 339 (b) 45	228	612	..	48	660	..	..
Do. South ..	8	(a) 588	55	651	..	5	656	59	35
Do. West ..	..	(a) 584 (c) 22	258	864	..	100	964	..	199
Cuddapah, North ..	..	(a) 137 (c) 17	406	560	..	13	573	..	135
Do. South ..	..	240	86	326	..	40	366	..	..
Do. West ..	3	(a) 493 (c) 12	880	1,388	..	22	1,410	190	119
Chittoor	..	(a) 1,283 (b) 161 (c) 2	..	1,446	..	60	1,506	..	61
Total ..	11	(a) 5,722 (b) 720 (c) 76	2,371	8,970	..	322	9,292	270	737

Note for First Circle.

(a) Cleared by subordinates free of cost.
(b) Cleared by hill tribes for fire-protection, the cost of which being debited to (b) VII (f).
(c) Cost of works other than boundaries of forests finally notified.
(d) Deduction due to disforestation.
(e) Correct figures arrived at by measuring length of bounaries on maps.

Note for Second Circle.

(a) Boundaries repaired free of cost by subordinates.
(b) Do. do. by panchayatdars.
(c) Do. at Government cost.
(d) Cost of demarcating a mining plot.

Record of demarcation and maintenance of boundaries during 1924–25—*cont.*

District.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries still to be demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
								On new work.	On repairs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Fourth Circle.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	RS.	RS.
Chingleput ..	5	761	87	853	..	..	853	267	49
Vellore, North .	..	(*a*)1,029·8	..	1,021		11	1,035	..	13
Do. South ..	..	(*b*) 915	..	915	..	15	930	..	..
Do. West ..	..	598	31	629	.	13	642	..	156
Salem, East ..	..	1,168	..	1,168	..	4	1,172	..	563
Do. North ..	..	418	66	484	..	116	600	..	51
Do. Central ..	..	683	1	684	..	15	699	..	445
Do. South ..	7	(*a*) 1,025·21	..	1,011	61	..	1,072	126	67
Total ..	12	(*a*) 6.597·29	185	6,765	64	174	7,003	393	1,344
Fifth Circle.									
Kollegal	13	(*a*) 310	..	323	120	152	595	454	9
Coimbatore, North	..	(*a*) 585	..	585	170	106	861	(*b*) 100	..
Do. South.	..	26	194	220	..	72	292	..	188
Madura	15	(*a*) 946	391	1,352	214	171	1,737	863	..
Tinnevelly ..	..	(*a*) 296	133	435	..	34	489	..	75
		..	(*c*) + 6	..	..	(*c*) 20	..	..	..
Total .	28	2,163	724	2,915	504	555	3,974	1,417	272
Sixth Circle.									
Mangalore, North.	..	..	(*a*) 1,226	1,226	..	103	1,329	..	..
Do. South.	..	..	(*a*) 1,135	1,135	..	101	1,236	8	..
		..	..	..	..	..	..	(*d*) 158	
Wynaad	10	(*b*) 68	1,112	1,190	18	36	1,244	380	71
Nilambur	..	(*g*) 95	..	95	20	55	170	(*e*) 26	..
The Nilgiris ..		297	1,214	1,511	..	299	1,810	(*f*)767	54
Palghat	2	93	201	296	14	39	(*c*) 349	122	..
Total ..	12	553	4,888	5,453	52	633	6,138	1,461	125
Parlakimedi malihabs.	6	490	7	503	4	24	532	60	17
Balliguda, Agency.	52	114	80	246	116	5	367	1,167	571
Grand total, Presidency.	132	23,586	8,295	3,2013	776	2,419	35,208	4,768	3,128

Note for Fourth Circle.
(*a*) Deduction due to disforestation.
(*b*) Cleared by Forest subordinates free of cost.

Note for Fifth Circle.
(*a*) Cleared by subordinates free of cost.
(*b*) Cost of slabs prepared for demarcation of Argiam enclosure.
(*c*) Due to addition of common boundary between Kodamady and Kannikatty and also the correct calculation of the boundary between Government forests and Kattalaimalai enclosures.

Note for Sixth Circle.
(*a*) Usual line-clearing attended to by subordinates.
(*b*) Includes 25 miles cleared free of cost by subordinates and 27 miles of the boundary between Malabar and Mysore lockspitted from political funds.
(*c*) Decrease of one mile as compared with last year is due to disafforestation of a portion of Bolampatty block I.
(*d*) Expenditure on demarcation of proposed reserves.
(*e*) Cairns constructed in Beypore Tope reserve.
(*f*) Expenditure on verification of boundaries.
(*g*) Cost of line-clearing charged to fire-protection operations.

Annual Form No. 69.

Forest Department, Madras Presidency.

Progress made in working plans during 1924–25.

District.	Areas for which working plans have been completed and approved by the Chief Conservator.		Areas for which working plans are being compiled or have been compiled but not sanctioned.		Areas for which working plans have still to be taken in hand.	Areas for which working plans are not required at present.	Total forest area as per Form No. 65.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.			
First Circle.	Sq. mls.	Sq. mls.	Sq. mls.	Sq. mls.	Sq. mls.	Sq. mls.	Sq. mls
Reserved forests.							
Ganjām	625	..	..	..	..	..	625
Vizagapatam ..	248	..	..	..	42	17	307
Gōdāvari, Upper ..		..	..	..	830	..	830
Do. Lower ..	(*a*) 398 — 2	..	..	..	107	66	569
Guntūr	(*a*) 93	..	651	..	..	182	926
Nellore	(*b*) 94	..	126	..	14	493	727
Total ..	1,456	..	777	..	993	758	3,984
Reserved lands.							
Vizagapatam ..	..	..	..	..	..	2	..
Guntūr	..	..	..	..	..	1	..
Total ..	..	..	..	..	..	3	..
Second Circle.							
Reserved forests.							
Bellary	..	..	..	..	..	562	562
Anantapur ..	(*c*) 422	..	..	..	..	292	714
Kurnool, East ..	..	..	176	..	761	33	970
Do. South ..	..	(*a*) 197	9	(*b*) 237	321	..	764
Do. West ..	298	..	1	(*c*) 11	529	..	839
Cuddapah, North ..	31	..	50	..	15	501	597
Do. South ..	(*d*) 96	..	..	..	..	366	462
Do. West ..	50	..	24	..	6	666	746
Chittoor	(*c*) 84	..	11	..	..	728	823
Total ..	981	197	271	248	1,632	3,148	6,477
Reserved lands.							
Bellary	..	..	..	..	..	0·14	..
Kurnool, South ..	..	..	..	..	..	2·70	..
Cuddapah, South ..	..	..	..	..	..	0·2	..
Total ..	..	..	..	..	..	3·04	3

Note for First Circle.

(*a*) Includes area transferred from Kistna other than those managed by Panchayats.
(*b*) Correct figure.

Note for Second Circle.

(*a*) Represents area of Sirvel working plan sanctioned in C.C.P. No. 323, Press, dated 24th November 1924.
(*b*) Represents area of working plans for Chelama and Gundlakamma ranges taken up during the year.
(*c*) Represents area of working plans for Pecheruvu and Bairluty taken up during the year.
(*d*) Includes 15 square miles of Pullampet and Kodur Extension working plans kept in abeyance for want of demand.
(*e*) Revised figure.

Progress made in working plans during 1924–25—*cont.*

District.	Areas for which working plans have been completed and approved by the Chief Conservator.				Areas for which working plans are being compiled or have been compiled but not sanctioned.						Areas for which working plans have still to be taken in hand.	Areas for which working plans are not at present required.	Total forest area as per Form No. 65.
	At commencement of the year.		During the year.		At commencement of the year.			Taken in hand during the year.					
	Regular working plans.	Schemes.	Revised or new working plans.	Revised or new schemes.	Existing working plans.	Existing schemes.	New working plans or schemes.	Existing working plans.	Existing schemes.	New working plans or schemes.			
FOURTH CIRCLE.	SQ. MS.	SQ. MS.	SQ. MS.	S.MS.	SQ. MS.	S.MS.	S.MS.	SQ. MS.	S.MS.	S MS.	SQ. MS.	SQ. MS.	SQ. MS.
Reserved forests.													
Chingleput ..	143	..	..	..	..	..	..	..	..	..	..	53	196
Vellore, North ..	348	..	..	..	..	..	..	(*b*) 116	..	..	..	32	448
	(*a*) 68											(*b*) 68	
Do. South .	(*d*) 413	..	..	..	(*f*) 480	..	.	..	.	..	..	..	480
Do. West ..	381	..	(*e*) 366	..	..	..	..	..	..	..	..	1	382
Salem, East ..	336	(*c*) 12	..	..	..	..	74	..	..	..	..	158	568
Do. North ..	95	..	..	..	..	..	217	..	..	.	209	..	521
Do. Central ..	260	..	..	..	..	..	36	(*b*) 48	..	..	114	..	410
Do. South ..	153	78	..	..	..	31	..	..	..	..	66	35	363
Total ..	1,784	78	..	..	480	31	327	..	..	..	390	279	3,368

Note for Fourth Circle.

(*a*) Areas transferred to Panchayats and areas of reserves not contributing to the formation of the fuel scheme.

(*b*) Included in the figures in column 2.

(*c*) Included in the figures in column 2. Correct area of the working plan sanctioned in the Chief Conservator's Proceedings No. 316, dated 10th November 1924.

(*d*) Included in the figures in column 4.

(*e*) Included in the figures in column 2, sub-column 1.

(*f*) Working plan sanctioned in the Chief Conservator's Proceedings No. 114, dated 6th May 1925.

Progress made in working plans during 1924-25—*cont.*

District	Areas for which working plans have been completed and approved by the Chief Conservator.		Areas for which working plans are being compiled or have been compiled but not sanctioned.		Areas for which working plans have still to be taken in hand.	Areas for which working plans are not at present required.	Total forest area as per Form No. 65.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.			
FIFTH CIRCLE.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Reserved forests.							
Kollegal ..	(*a*) 3 (*b*) 141	..	29	Nil.	81	688	942
Coimbatore, North.	(*a*) 78 (*b*) 266 (*c*) 222	(*b*) 5 (*c*) —10	..	..	24 (*b*) —5	181 (*c*) +10	771
Do. South.	(*a*) 65	..	..	..	25	336	426
Madura	(*a*) 351	..	15	..	279	15	660
Tinnevelly ..	(*b*) 287	..	..	..	..	139 (*a*) — 9	417
Total ..	1,413	—5	44	..	404	1,360	3,216
Leased forests.							
Coimbatore, South	(*a*) 20	..	..	..	..	7	27
Grand total ..	1,433	—5	44	..	404	1,367	3,243
SIXTH CIRCLE.							
Reserved forests.							
Mangalore, North.	(*b*) 25	..	..	(*b*) 13	321	..	359
Do. South.	3	..	..	..	436	..	439
Wynaad	..	..	..	..	63	200	263
Nilambur	108	..	..	..	..	..	108
The Nilgiris	(*e*) 63	..	(*c*) 2	..	5	347	417
Palghat ..	(*a*) 27 (*b*) 45	..	..	..	97	94	263
Total ..	271	..	2	13	922	641	1,849
Reserved lands.							
The Nilgiris ..	75	..	..	..	1	6	(d) 82
Leased forests.							
Nilambur .. .	19	..	..	..	..	..	19
Total ..	365	..	2	13	923	647	1,950
Total, Presidency..	5,983	192	1,932	261	4,341	6,186	18,894 ‡
	39	..	..	..	..	7	46 *
	75	..	..	..	1	12	.. †
Grand Total ..	6,097	192	1,923	261	4,342	6,205	18,941

Note for Fifth Circle.

(*a*) Areas of regular working plans which are in force.
(*b*) Areas of temporary working schemes sanctioned by the Conservator.
(*c*) Areas of lapsed working plans worked for extraction of dead and spiked sandal trees.
(*d*) Disforested.
(*e*) Temporary scheme since cancelled.

Note for Sixth Circle.

(*a*) Includes Walayar working plan, 7 square miles under revision.
(*b*) Working scheme.
(*c*) Working scheme approved by the Conservator.
(*d*) Includes Todapatta land, 5 square miles.
(*e*) Four schemes, for working in Ooty and Coonoor range plantations of areas included in this were approved by the Chief Conservator of Forests.

* Leased forests. † Reserved lands.

‡ Excludes 27 square miles of leased forests in South Coimbatore Division.

Annual Form No. 70.

Forest Department, Madras Presidency.

Communications and buildings during 1924-25.

District.	Roads (including bridge-paths and culverts).				Buildings.		Other works.	
	New works.		Repairs.		Cost of new works.	Cost of repairs.	Cost of new works.	Cost of repairs.
	Length.	Cost.	Length.	Cost.				
First Circle.	M. F. CH.	Rs.	M. F. CH.	Rs.	Rs.	Rs.	Rs.	Rs.
Direction	..	..	..	..	..	860	..	..
Ganjam	Two culverts and a bridge.	921	..	..	..	..	..	3
	Acquisition of land	232	3 5 2	912	761	3,525 (a)1,450		
	3 0 0	571						
Vizagapatam ..	0 0 8	159	17 2 0	369	16	1,243 (a) 259	..	33
Godavari, Upper ..	0 6 0	162	7 1 0	275	1,449	1,294 (a) 427	..	60
Do. Lower ..	Compensation for occupation land.	185						
	Road tracing, 1 7 8	4 73	82 5 8	388	..	(b) 918 (a) 481		
Guntur	10 2 0	575	34 4 5	1,982	3,089	1,227	55	200
Nellore	..	..	4 3 0	39	257	786 (a)1,359	35	96
Total ..	16 0 6	2,882	99 5 5	3,965	5,572	13,829	90	392
Second Circle.								
Direction	..	..	..	..	..	198		
Bellary	..	..	..	..	..	114 (a) 695		
Anantapur ..	..	..	3 0 0	299	125	853 (a) 1,289	..	55
Kurnool, East ..	(e) 4 0 0	1,439	64 0 0	4,931	438	1,931 (a) 576	378	284
Do. South ..	(f) 6 6 0	2,860	76 4 0	(b)6,064	2,505	1,290 (a) 96	..	559
Do. West ..	(d) 9 0 0	1,724	17 0 0	2,509 (c) 500	1,060	1,404 (a) 912	481	117
Cuddapah, North ..	..	..	14 4 0	470	606	1,008 (a) 601	108	415
Do. South ..	0 1 0	199	50 6 0	582	103	875 (a) 360	180	20
Do. West	..	..	25 4 0	819	902	998 (a) 1,304	..	479
Chittoor ..	..	..	4 7 0	1,432	515	2,251 (a) 944	648	1
Total ..	19 7 0	6,222	256 1 0	17,614	6,254	17,699	1,795	1,930

Note for First Circle.

(a) Represents cost of establishment.
(b) Includes Rs. 41 wrongly credited to this head instead of to B IX (a).

Note for Second Circle.

(a) Cost of establishment.
(b) Includes Rs. 2,200—Contribution to Local Fund Department.
(c) Contribution to the Local Fund Department in respect of the Manthrala-Kanama Road.
(d) Includes seven miles of new alignment and metalling of one mile of the existing road.
(e) Includes three miles of Eguvacherlapalli and Ragatikunta Road which was in progress since 1922-23 and Rs. 734 spent during the year.
(f) Includes 4¾ miles of bridle-path.

Communications and buildings during 1924-25—*cont.*

District.	Roads (including bridle-paths and culverts).				Buildings.		Other works.	
	New works.		Repairs.		Cost of new works.	Cost of repairs.	Cost of new works.	Cost of repairs.
	Length.	Cost.	Length.	Cost.				
Fourth Circle.	M. F. CH.	Rs.	M. F. CH.	Rs.	Rs.	Rs.	Rs.	Rs.
Chingleput ..	6 4 0	500	15 5 0	937	..	960	..	30
Vellore, North ..	..	..	15 0 0	829	22	404	..	149
Do. South ..	.	..	33 0 0	2,849	4,080	2,026	107	268
Do. West ..	19 5 0	1,081	25 4 0	2,055	3,026	1,758	195	56
Salem, North ..	0 6 0	287	52 0 0	1,931	2,428	1,644	38	82
Do. East ..	..	..	32 2 0	333	..	2,293	..	105
Do. Central ..	0 1 2	55	23 5 0	1,085	60	1,998	..	113
Do. South ..	1 1 0	1,352	16 2 0	681	1,444	1,094	..	19
Total ..	28 1 2	3,275	213 2 0	10,200	11,060	12,177	340	822
Fifth Circle.								
Kollegal	3 0 0	21	41 7 0	1,093	15	304 / (b) 210	..	50
Coimbatore, North .	..	..	120 0 0	4,521	..	1,773 / (b) 360	..	114 / (a)—17
Do. South .	..	72	56 1 0	12,268 / (b) 405	519	2,903 / (b) 430	260	142
Madura	..	263	142 0 0	12,883	560	1,744 / (b) 138	435	436 / (a) 27
Tinnevelly ..	0 7 0	998 / (a) 38	27 0 0	3,750 / (a) 51	6,616 / (a)— 67	3,083 / (a) 17 / (b) 482	..	6
	29 0 0	(c)3,706	14 4 0	(c) 554	(c) 4,586	(c) 321	..	..
Total ..	32 7 0	5,098	401 4 0	35,525	12,229	11,765	695	758
Sixth Circle.								
Mangalore, North .	1 6 0	184	13 6 0	2,061	4,136	474	939	..
Do. South.	9 1 0	1,060	14 7 0	168	6,572	548	477	16
Wynaad	1 1 0	a)2,016	154 6 0	5,156	17,609	1,647	617	1293
Nilambur	0 1 0	109	23 1 0	1,830	35,060	2,141	1,452	123
The Nilgiris ..	0 6 0	201	88 6 0	3,368	5,166	(c) 2,230	..	..
Palghat	9 1 0	(b)3,606	85 0 0	2,373	3,118	436	..	10
Total ..	22 0 0	7,176	380 2 0	14,956	71,661	8,476	3,485	442
Parlakimedi Ma'iahs	..	..	..	..	..	114	..	..
Exploitation Division.	19 7 3	1,06,244	8 0 0	28,918	40,950	1,305	5,648	..
Grand total, Presidency	138 7 1	1,30,897	1,358 6 5	1,11,178	1,47,726	65,365	12,013	4,384

Note for Fourth Circle.—*Note.*—The amounts shown in column (7) include cost of establishments.

Note for Fifth Circle.
(a) Added or deducted to tally with the Accountant-General's figures.
(b) Cost of establishment.
(c) Expenditure incurred on development works in Tinnevelly and included in 'Direction' accounts.

Note for Sixth Circle.
(a) Includes Rs. 1,248 spent on collection of metal for improving Chedleth-Kolvalli Road.
(b) Includes expenditure of Rs. 150 on alignment of 17 miles of inspection paths.
(c) Excludes cost of repairing the Madras Forest College huts at Aram by Rs. 208 and at Bandyshola, Rs. 177.

ANNUAL FORM No. 71.

Forest Department, Madras Presidency.

Register of breaches of Forest Rules during 1924–25.

Annual Form No. 71.

Forest Department, Madras Presidency.

Register of breaches of Forest Rules during 1924–25.

District.		Cases pending from 1923–24.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorized felling.	Unauthorized grazing.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
First Circle.															
Ganjām ..	A ..	26	2	39	5	..	46	72	47	224	7	24	54	248	18
	B ..	125	..	483	40	5	528	653	547	1,839	32	228	579	2,067	74
	C ..	..	55	31	..	..	86	..	..	..	..	..	..	..	..
Total ..		151	57	553	45	5	660	725	594	2,063	39	252	633	2,315	92
Vizaga-patam.	A ..	(*a*) 16	..	18	..	2	20	36	28	64	2	14	30	78	6
	B ..	(*a*) 18	..	273	17	52	342	360	292	737	39	97	331	834	29
	C ..	..	14	4	..	..	18	..	..	..	..	..	..	..	..
Total ..		34	14	295	17	54	380	396	320	801	41	111	361	912	35
Gōdāvari, Upper.	A ..	(*a*) 2	..	5	..	..	5	7	5	16	1	13	6	29	1
	B ..	(*a*) 18	1	62	10	8	81	99	73	235	18	77	91	312	8
	C ..	..	17	1	1	1	20	..	..	..	..	..	..	..	..
Total ..		20	18	68	11	9	106	106	78	251	19	90	97	341	9
Gōdāvari, Lower.	A ..	(*b*) 40	..	29	17	15	61	101	68	180	7	21	75	201	26
	B ..	(*b*) 81	..	418	118	88	624	705	553	1,062	38	76	591	1,138	114
	C ..	..	..	3	..	..	3	..	..	..	..	..	..	..	..
Total ..		121	..	450	135	103	688	806	621	1,242	45	97	666	1,339	140
Guntūr	A ..	(*b*) 373	..	373	300	15	688	1,061	465	1,581	518	1,751	983	3,332	78
	B ..	(*b*) 172	..	938	723	158	1,819	1,991	1,623	4,020	42	96	1,664	4,116	327
	C ..	..	..	42	1	..	43	..	..	..	..	..	..	..	..
Total ..		545	..	1,353	1,024	173	2,550	3,052	2,087	5,601	560	1,847	2,647	7,448	405

Nellore ..	A ..	(a) 232	1	366	402	5	774	1,006	79	179	669	1,107	748	1,304	258
	B ..	(a) 198	..	779	512	9	1,300	1,498	1,109	2,473	70	130	1,179	2,503	319
	C ..	..	..	26	..	..	26	..	..	..	..	..	..	..	..
	Total ..	430	1	1,171	914	14	2,100	2,504	1,188	2,670	739	1,237	1,927	3,907	577
Total, First Circle.	A ..	689	3	830	724	37	1,594	2,283	692	2,262	1,204	2,930	1,896	5,192	387
	B ..	612	1	2,953	1,420	320	4,694	5,306	4,196	10,366	239	704	4,435	11,070	871
	C ..	..	86	107	2	1	196	..	..	..	..	..	..	..	..
Grand total, First Circle.		1,301	90	3,890	2,146	358	6,484	7,589	4,888	12,628	1,443	3,634	6,331	16,262	1,258
Second Circle.															
Bellary ..	A* ..	42	..	131	67	18	216	258	95	296	108	246	203	542	55
	B ..	52	..	188	106	24	318	370	267	564	48	102	315	666	56
	C ..	..	56	10	..	..	66	..	..	..	..	..	..	..	..
	Total .	94	56	329	173	42	600	628	362	860	156	348	518	1,208	110
Anantapur.	A ..	93	..	122	31	9	162	255	165	394	25	56	190	450	65
	B ..	121	..	484	120	47	651	772	579	1,383	37	160	646	1,543	126
	C ..	..	..	5	..	..	5	..	..	..	..	..	..	..	..
	Total ..	214	..	611	151	56	818	1,027	744	1,777	92	216	836	1,993	191
Kurnool, East.	A ..	17	..	63	31	..	94	111	84	202	14	31	98	233	13
	B ..	107	..	290	101	12	403	510	383	927	9	30	392	957	118
	C ..	..	29	8	..	..	37	..	..	..	..	..	..	..	..
	Total ..	124	29	361	132	12	534	621	467	1,129	23	61	490	1,190	131
Kurnool, South.	A ..	32	..	67	77	26	170	202	158	415	29	137	187	552	15
	B ..	54	..	166	143	107	416	470	379	850	33	73	412	923	58
	C ..	..	26	11	..	15	52	..	..	..	..	..	..	..	..
	Total ..	86	26	244	220	148	638	672	537	1,265	62	210	599	1,475	73

A = Cases taken to court. B = Cases compounded. C = Cases undetected.

NOTE.—(a) The variations between the closing balance of last year and opening balance of this year are due to transfers from B to A.
(b) The increase is due to pending cases of the late Kistna division having been added to current year's opening balance.

* The variations between the closing balance of last return, and opening balance of this return under headings A and B in Bellary, Kurnool, West, and Cuddapah, West, are due to the transfer of cases from one head to another.

Register of breaches of Forest Rules during 1924-25—*cont.*

District.	Cases pending from 1923-24.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorized felling.	Unauthorized grazing.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Second Circle—cont.														
Kurnool, West. A*	50	..	159	52	39	250	300	250	833	46	147	296	980	4
Kurnool, West. B	28	..	250	105	41	396	424	390	954	15	100	405	1,054	19
Kurnool, West. C	..	44	25	..	..	69	..	..	..	..	..	..	..	..
Total	78	44	434	157	80	715	724	640	1,787	61	247	701	2,034	23
Cuddapah, North. A	10	..	91	14	1	106	116	86	221	18	40	104	261	12
Cuddapah, North. B	27	..	249	50	3	302	329	281	588	30	109	311	697	18
Cuddapah, North. C	..	37	20	3	..	60	..	..	..	..	..	..	..	..
Total	37	37	360	67	4	468	445	367	809	48	149	415	958	30
Cuddapah, South. A	19	..	70	18	..	88	107	61	137	31	97	92	234	15
Cuddapah, South. B	12	1	187	73	7	268	280	238	478	19	39	257	517	23
Cuddapah, South. C	..	..	6	..	..	6	..	..	..	..	..	..	..	..
Total	31	1	263	91	7	362	387	299	615	50	136	349	751	38
Cuddapah, West. A*	58	..	197	101	7	306	364	251	585	74	178	325	763	39
Cuddapah, West. B	40	1	413	166	13	593	633	561	975	34	115	595	1,088	38
Cuddapah, West. C	..	1	20	..	..	21	..	..	..	..	..	..	..	..
Total	98	2	630	267	20	920	997	812	1,558	108	293	920	1,851	77
Chittoor .. A	47	1	203	164	26	394	441	223	586	175	380	398	966	43
Chittoor .. B	94	1	628	333	73	1,035	1,129	947	1,336	63	125	1,010	1,461	119
Chittoor .. C	..	37	10	..	..	47	..	..	..	..	..	..	..	..
Total	141	39	841	497	99	1,476	1,570	1,170	1,922	238	505	1,408	2,427	162

Total, Second Circle.	A ..	368	2	1,103	555	126	1,786	2,154	1,373	3,669	520	1,312	1,893	4,981	261
	B ..	535	3	2,855	1,197	327	4,382	4,917	4,025	8,053	318	853	4,343	8,906	574
	C ..	..	229	115	3	15	363	..	..	..	..	..	..	..	..
Grand total, Second Circle.		903	234	4,073	1,755	468	6,531	7,071	5,398	11,722	838	2,165	6,236	13,887	835
Fourth Circle.															
Chingleput.	A ..	25	..	80	20	3	103	128	24	45	82	193	106	239	22
	B ..	91	..	527	159	14	700	791	669	836	76	149	745	985	46
	C ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total ..	† 116	..	607	179	17	803	919	693	882	158	342	851	1,224	68
Vellore, North.	A ..	210	..	549	266	7	822	1,032	538	1,211	350 (a) 24	789	912	2,000	120
	B † ..	214	..	1,182	287	2	1,471	1,685	1,388	2,730	38	106	1,426	2,836	259
	C ..	..	55	52	..	..	107	..	..	..	..	..	..	..	..
	Total ..	424	55	1,783	553	9	2,400	2,717	1,926	3,941	412	895	2,338	4,836	379
Vellore, South.	A ..	316	..	497	61	10	568	884	516	993	225	604	741	1,600	143
	B ..	425	..	1,069	273	140	1,486	1,911	1,518	2,628	178	442	1,696	3,070	215
	C ..	..	48	53	..	..	101	..	..	..	..	..	..	..	..
	Total ..	741	48	1,619	334	154	2,155	2,795	2,034	3,624	403	1,046	2,437	4,670	358
Vellore, West.	A ..	38	2	201	77	9	289	327	194	360	108	215	302	575	25
	B ..	73	..	378	104	6	488	561	507	855	..	..	507	855	54
	C ..	..	..	17	..	3	20	..	..	..	..	..	..	..	..
	Total ..	111	2	596	181	18	797	888	701	1,215	108	215	809	1,430	79
Salem, East.	A ..	855	1	836	333	3	1,173	2,028	1,397	4,222	194	473	1,591	4,695	437
	B † ..	370	..	632	137	2	771	1,141	729	1,858	225	369	954	1,727	187
	C ..	..	22	11	..	1	34	..	..	..	..	..	..	..	..
	Total ..	1,225	23	1,479	470	6	1,978	3,169	2,126	5,580	419	842	2,545	6,422	624
Salem, North.	A ..	39	1	106	12	6	125	164	111	276	33	57	144	333	20
	B † ..	51	..	408	87	15	510	561	461	735	34	84	495	819	66
	C ..	..	113		..	..	113	..	..	..	..	..	..	..	..
	Total ..	90	114	514	99	21	748	725	572	1,011	67	141	639	1,152	86

A = Cases taken to Court. B = Cases Compounded. C = Cases undetected. (a) = Cases withdrawn

Note.—* The variations between the closing balance of last return, and opening balance of this return under headings A and B in Bellary, Kurnool, West, and Cuddapah West, are due to the transfer of cases from one head to another.

† The differences between the closing balances of 1923–24 and the opening balances of 1924–25 in all districts except South and West Vellore are due to transfer of cases from B to A and to corrected figures furnished by the District Forest Officers.

Register of breaches of Forest Rules during 1924-25—*cont.*

District.	Cases pending from 1923-4.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorized felling.	Unauthorized grazing.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Fourth Circle—cont.														
Salem, Central. A	370	..	576	71	15	662	1,032	625	1,581	41	72	666	1,656	319
B	470	..	707	124	7	838	1,308	831	1,702	(a) 47	178	47	178	
C	..	37	..	..	16	53	..	..	..	46	128	877	1,830	431
*Total	840	37	1,283	195	38	1,553	2,340	1,456	3,286	134	378	1,590	3,664	750
Salem, South. A	101	..	418	20	5	443	544	378	768	25	144	403	912	141
B	521	..	1,212	171	38	1,421	1,942	1,404	3,038	84	218	1,488	3,256	454
C	..	35	20	..	..	55	..	..	..	..	..	..	..	..
*Total	622	35	1,650	191	43	1,919	2,486	1,782	3,806	109	362	1,891	4,168	595
Total, Fourth Circle. A	1,954	4	3,263	860	58	4,185	6,139	3,783	9,463	1,129	2,725	4,912	12,188	1,227
B	2,215	..	6,115	1,342	228	7,685	9,900	7,507	13,882	681	1,496	8,188	15,378	1,712
C	..	310	153	..	20	483	..	..	..	..	..	..	..	..
Grand total, Fourth Circle.	4,169	314	9,531	2,202	306	12,353	16,039	11,290	23,345	1,810	4,221	13,100	27,566	2,939
Reserved forests and unreserved lands.														
Fifth Circle.														
Kollegal. A	* 28	..	95	25	8	128	156	6	43	146	391	152	434	4
B	* 31	..	231	105	34	370	401	236	485	61	215	297	698	104
C	..	18	..	..	..	18	..	..	..	..	..	..	..	..
Total	59	18	326	130	42	516	557	242	526	207	606	449	1,132	108

Coimbatore, North.	A	..	26	1	150	40	7	198	224	122	574	45	98	167	672	57
	B	..	79	..	635	157	26	818	897	750	1,861	53	104	803	1,965	94
	C	..	..	56	6	26	1	89	..	..	..	..	..	..	..	..
	Total	..	105	57	791	223	34	1,105	1,121	872	2,435	98	202	970	2,637	151
Coimbatore, South.	A	..	† 66	..	77	21	7	105	171	45	105	67	188	112	293	59
	B	..	† 23	..	125	36	2	163	185	156	366	4	12	160	378	26
	C	..	..	2	3	2	2	9	..	..	..	..	..	..	..	..
	Total	..	89	2	205	59	11	277	357	201	471	71	200	272	671	85
Madura ..	A	..	† 1,053	..	786	166	22	974	2,027	1,251	4,031	283	1,398	1,534	5,429	493
	B	..	† 13	..	572	133	17	722	735	508	952	26	65	534	1,017	201
	C	..	..	115	9	..	..	124	..	..	..	..	..	..	..	..
	Total	..	1,066	115	1,367	299	39	1,820	2,762	1,759	4,983	309	1,463	2,068	6,446	694
Tinnevelly	A	..	49	..	193	62	2	257	306	942	495	5	13	247	508	59
	B	..	289	..	643	199	52	894	1,183	696	1,574	204	358	900	1,932	283
	C	..	..	44	16	4	..	64	..	..	..	..	..	..	..	..
	Total	..	338	44	852	265	54	1,215	1,489	938	2,069	209	371	1,147	2,440	342
Grand total.	A	..	† 1,222	1	1,301	314	46	1,662	2,884	1,666	5,248	546	2,088	2,212	7,336	672
	B	..	† 435	..	2 206	630	131	2,967	3,402	2,346	5,236	348	754	2,694	5,990	708
	C	..	..	235	34	32	3	304	..	..	..	..	..	..	..	..
	Total	..	1,657	236	3,541	976	180	4,933	6,286	4,012	10,484	894	2,842	4,906	13,326	1,380

A = Cases taken to court. B = Cases compounded. C = Cases undetected. (a) Cases withdrawn.

* The differences between the closing balances of 1923-24 and the opening balances of 1924-25 in all districts except South and West Vellore are due to transfer of cases from B to A and to corrected figures furnished by the District Forest Officers.

† The variations between the closing balance of last year and these figures are due to transfers from A to B.

Register of breaches of Forest Rules during 1924-25—*cont.*

District.	Cases pending from 1923-24.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorized felling.	Unauthorized grazing.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Sixth Circle.														
Mangalore, North. A ..	19	(e)..	22	..	5	27	46	31	65	8	11	39	76	7
Mangalore, North. B ..	59	(e)..	235	4	5	244	303	264	666	(d) 12	36	276	702	27
Mangalore, North. C ..	..	12	..	..	..	12	..	..	..	..	..	..	..	..
Total ..	78	12	257	4	10	283	349	295	731	20	47	315	778	34
Mangalore, South. A ..	26	31	42	17	1	91	117	53	116	(f) 63	93	116	209	1
Mangalore, South. B ..	124	84	117	64	24	289	413	364	598	(d) 20	42	384	640	29
Mangalore, South. C ..	..	42	..	..	..	42	..	..	..	..	..	..	..	..
Total ..	150	157	159	81	25	422	530	417	714	83	135	500	849	30
Wynaad .. A ..	..	..	1	7	..	8	8	..	..	(h) 8	10	8	10	..
Wynaad .. B ..	1	7	12	30	13	62	63	42	82	(d) 6	6	48	88	15
Wynaad .. C ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	1	7	13	37	13	70	71	42	82	14	16	56	98	15
Nilambur. A ..	1	..	..	..	3	3	4	2	7	..	..	2	7	2
Nilambur. B ..	2	..	4	1	9	14	16	13	46	3	3	16	49	..
Nilambur. C ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	3	..	4	1	12	17	20	15	53	3	3	18	56	2
The Nilgiris. A ..	19	(e) 1	7	11	7	26	45	32	53	8	15	40	68	5
The Nilgiris. B ..	45	(e) 4	185	113	27	329	374	301	722	20	45	321	767	53
The Nilgiris. C ..	..	31	..	..	..	31	..	..	..	..	..	..	..	..
Total ..	64	36	192	124	34	386	419	333	775	28	60	361	835	58

Palghat ..	A ..	(e) 20	..	54	13	8	75	95	41	126	(g) 27	65	68	191	27
	B ..	(e) 14	..	248	45	32	325	339	282	628	26	60	308	688	31
	C ..	..	6	3	..	..	9	..	..	..	..	..	..	..	..
Total ..		34	6	305	58	40	409	434	323	754	53	125	376	879	58
Total, Sixth Circle.	A ..	85	(e) 32	126	48	24	230	315	159	367	114	194	273	561	42
	B ..	245	(e) 95	801	257	110	1,263	1,508	1,266	2,742	87	192	1,353	2,934	155
	C ..	..	91	3	..	..	94	..	..	..	..	..	..	..	..
Grand total ..		330	218	930	305	134	1,587	1,823	1,425	3,109	201	386	1,626	3,495	197
Parlakimedi maliahs.	A ..	2	..	11	4	..	15	17	9	22	1	5	10	27	7
	B ..	26	7	210	18	6	241	267	196	496	15	71	211	567	56
	C ..	..	21	..	..	..	21	..	..	..	..	..	..	..	..
Total ..		28	28	221	22	6	277	284	205	518	16	76	221	594	63
Total, Presidency.	A ..	4,320	42	6,634	2,505	291	9,472	13,792	7,682	21,031	3,514	9,254	11,196	30,285	2,596
	B ..	4,068	106	15,140	4,864	1,122	21,232	25,300	19,536	40,775	1,688	4,070	21 224	44,845	4,076
	C ..	..	972	412	37	39	1,461	..	..	..	..	..	..	..	..
Grand total, Presidency.		8,388	1,120	22,186	7,406	1,452	32,165	39,092	27,218	61,806	5,202	13,324	32,420	75,130	6,672

A = Cases taken to court. B = Cases compounded. C = Cases undetected. (d) Cases withdrawn.

(e) Difference due to transfer from B to A.

(f) Fourteen cases were acquitted after trial and 49 cases were acquitted or withdrawn after payment of compounding fees.

(g) Compounding fees were realized in twenty-one cases and two cases were acquitted.

(h) Compounding fees were paid in all cases.

FORM No. 72.

Forest Department, Madras Presidency.

Area of forest tracts protected from fire during the calendar year 1924.

District.	Forest tracts.	Area protected during the previous year.	During the year under report.			Cost during the year under report.
			Area attempted to be protected.	Fires.	Actually protected.	
	First Circle.	ACS.	ACS.	ACS.	ACS.	RS.
Ganjam ..	Special protection ..	47,797	48,695	437	48,258	2,182
	General do. ..	212,008	218,758	10,386	208,372	2,092
	Total ..	259,805	267,453	10,823	256,630	4,274
Vizagapatam.	Special protection ..	78,548	79,148	9,150	69,998	967
	General do. ..	58,169	58,799	1,110	57,689	250
	Total ..	136,717	137,947	10,260	127,687	1,217
Godavari, Upper.	Special protection ..	382,399	530,296	7,471	522,825	7,834
	General do. ..	..	1,138	13	1,125	5
	Total ..	382,399	531,434	7,484	523,950	7,839
Godavari, Lower.	Special protection ..	158,117	169,726	10,400	159,326	3,550
	General do. ..	81,940	82,568	241	82,327	528
	Total ..	240,057	252,294	10,641	241,653	4,078
Guntur ..	Special protection ..	26,667	35,476	..	35,476	176
	General do. ..	497,419	557,170	1,028	556,142	..
	Total ..	524,086	592,646	1,028	591,618	176
Nellore ..	Special protection ..	148,953	149,853	1,171	148,682	605
	General do. ..	316,495	315,383	17	315,366	..
	Total ..	465,448	465,236	1,188	464,048	605
Total, First Circle.	Special protection ..	842,481	1,013,194	28,629	984,565	15,314
	General do. ..	1,166,031	1,233,816	12,795	1,221,021	2,875
	Grand total ..	2,008,512	2,247,010	41,424	2,205,586	18,189
	Second Circle.					
Bellary ..	Special protection ..	16,432	5,647	448	5,199	410
	General do. ..	225,403	248,214 (a) 105,889	14,699	339,404	..
	Total ..	241,835	359,750	15,147	344,603	410
Anantapur.	Special protection ..	133,064	..	..	..	..
	General do. ..	330,222	451,942	..	451,942	..
	Early burning ..	..	5,017	..	5,017	..
	Total ..	463,286	456,959	..	456,959	..
Kurnool, East.	General protection ..	457,414	474,527	8,102	466,425	..
	Early burning	134,849	146,240	22	145,218	337
	Total ..	592,263	620,767	8,124	612,643	337
Kurnool, South.	General protection ..	256,551	300,940	9,947	290,993	475
	Early burning	184,805	188,178	1,639	186,539	250 (b) + 36
	Total ..	441,356	489,118	11,586	477,532	761

(a) Area of reserves protected by panchayats.
(b) Added to agree with the Accountant-General's figure.

Area of forest tracts protected from fire during the calendar year 1924—*cont.*

District.	Forest tracts.	Area protected during the previous year.	During the year under report.			Cost during the year under report.
			Area attempted to be protected.	Fires.	Actually protected.	
	Second Circle—cont.	ACS.	ACS.	ACS.	ACS.	RS.
Kurnool, West.	Special protection ..	10,190	7,910	428	7,482	380
	General protection ..	9,888	169,996	90	169,906	..
	Early burning	358,748	359,076	..	359,076	730
	Total ..	378,806	536,982	518	536,464	1,110
Cuddapah, North.	General protection ..	137,564	142,016 (a)1,722	3,661	140,077	..
	Early burning	219,812	238,059	1,140	236,919	694
	Total ..	357,376	381,797	4,801	376,996	694
Cuddapah, South.	General protection ..	44,941	18,837	..	18,837	..
	Early burning	231,833	276,598	706	275,892	889
	Total ..	276,774	295,435	706	294,729	889
Cuddapah, West.	General protection ..	154,415	110,636 (a)70,996	1,210	180,412	..
	Early burning	248,849	295,926	241	295,685	1,262 (b) + 24
	Total ..	403,264	477,548	1,451	476,097	1,286
Chittoor ..	Special protection ..	99,871	34,404	1,230	33,174	3,661
	General do. ..	416,503	354,656 (a)86,261	695	440,222	..
	Early burning	..	51,375	..	51,375	448
	Total ..	516,374	526,696	1,925	524,771	4,109
Total, Second Circle.	Special protection ..	259,557	47,961	2,106	45,855	4,451
	General do. ..	2,032,881	2,536,622	38,404	2,498,218	475
	Early burning	1,378,836	1,560,469	3,748	1,556,721	4,670
	Grand total ..	3,671,334	4,145,052	44,258	4,100,794	9,596
	Fourth Circle.					
Chingleput.	Special protection ..	..	..	..	..	..
	General do. ..	127,424	125,689	31	125,658	..
	Total ..	127,424	125,689	31	125,658	..
Vellore, North.	Special protection ..	13,949	22,442	474	21,968	137
	General do. ..	270,973	264,173	2,096	262,077	..
	Total ..	284,922	286,615	2,570	284,045	137
Vellore, South.	Special protection ..	100,803	100,998	1,287	99,711	956
	General do. ..	192,167	193,280	521	192,759	..
	Total ..	292,970	294,278	1,808	292,470	956
Vellore, West.	Special protection ..	102,888	103,392	2,515	100,877	682
	General do. ..	140,592	141,081	99	140,982	..
	Total ..	243,480	244,473	2,614	241,859	682
Salem, East.	Special protection ..	190,372	191,369	279	191,090	1,072
	General do. ..	145,687	145,833	49	145,784	..
	Total ..	336,059	337,202	328	336,874	1,072

(*a*) Area of reserves protected by panchayats.
(*b*) Added to agree with the Accountant-General's figure.

Area of forest tracts protected from fire during the calendar year 1924—*cont.*

District.	Forest tracts.	Area protected during the previous year.	During the year under report.			Cost during the year under report.
			Area attempted to be protected.	Fires.	Actually protected.	
	Fourth Circle—cont.	ACS.	ACS.	ACS.	ACS.	RS.
Salem, North.	Special protection ..	70,362	71,340	807	70,533	904
	General do. ..	256,915	262,079	15,737	246,342	..
	Total ..	327,277	333,419	16,544	316,875	904
Salem, Central.	Special protection ..	107,740	94,307	3,527	90,780	1,367
	General do. ..	144,838	136,470	13	136,457	..
	Total ..	252,578	230,777	3,540	227,237	1,367
Salem, South.	Special protection ..	115,576	116,087	1,291	114,796	841
	General do. ..	106,167	116,328	5	116,323	..
	Total ..	221,743	232,415	1,296	231,119	841
Total, Fourth Circle.	Special protection ..	701,690	699,935	10,180	689,755	5,959
	General do. ..	1,384,763	1,384,933	18,551	1,366,382	..
	Grand total ..	2,086,453	2,084,868	28,731	2,056,137	5,959
	Fifth Circle.					
Kollegal ..	Special protection ..	1,692	2,028	..	2,028	99
	General do. ..	595,937	596,672	6,575	590,097	291
	Total ..	597,629	598,700	6,575	592,125	390
Coimbatore North.	Special protection ..	2,073	2,184	..	2,184	222
	General do. ..	488,487	491,441	13,752	477,689	1,147
	Total ..	490,560	493,625	13,752	479,873	1,369
Coimbatore, South.	Special protection ..	47,347	47,325	103	47,222	657
	General do. ..	199,326	200,216	..	200,216	..
	Total ..	246,673	247,541	103	247,438	657
Madura ..	Special protection ..	151,327	155,086	1,803	153,283	2,037
	General do. ..	264,312	267,518	3,709	263,809	..
	Total ..	415,639	422,604	5,512	417,092	2,037
Tinnevelly	Special protection ..	26,529	35,688	4,003	31,685	793
	General do. ..	200,334	206,712	897	205,815	..
	Total ..	226,863	242,400	4,900	237,500	793
Total, Fifth Circle	Special protection ..	228,968	242,311	5,909	236,402	3,308
	General do. ..	1,748,396	1,762,559	24,933	1,737,626	1,438
	Grand total ..	1,977,364	2,004,870	30,842	1,974,028	5,246

Area of forest tracts protected from fire during the calendar year 1924—*cont.*

District.	Forest tracts.	Area protected during the previous year.	During the year under report.			Cost during the year under report.
			Area attempted to be protected.	Fires.	Actually protected.	
	Sixth Circle.	ACS.	ACS.	ACS.	ACS	RS.
Mangalore, North.	Special protection ..	18,430	18,392	26	18,366	987
	General do. ..	210,850	211,510	270	211,240	979
	Total ..	229,280	229,902	296	229,606	1,966
Mangalore, South.	Special protection ..	280,294	280,888	3,138	277,750	2,235
Wynaad ..	Special protection ..	139,541	143,623	1,441	142,182	1,082
Nilambur ..	Special protection ..	81,111*	81,156	45	81,111	5,726
The Nilgiris.	Special protection ..	76,652	79,920	454	79,466	3,545
	General do. ..	242,365	239,093	1,742	237,351	..
	Total ..	319,017	319,013	2,196	316,817	3,545
Palghat ..	Special protection ..	126,073	124,997	563	124,434	3,624
	General do. ..	41,876	43,114	160	42,954	..
	Total ..	167,949	168,111	723	167,388	3,624
Total, Sixth Circle.	Special protection ..	722,101	728,976	5,667	723,309	17,199
	General do. ..	495,091	493,717	2,172	491,545	979
	Grand total ..	1,217,192	1,222,693	7,839	1,214,854	18,178
Total, Presidency.	Special protection ..	2,754,797	2,732,377	52,491	2,679,886	46,731
	General do. ..	6,827,562	7,411,647	96,855	7,314,792	5,767
	Early burning	1,378,896	1,560,469	3,748	1,556,721	4,670
Parlakimedi Maliahs.	....	110,683	112,608	2,854	109,754	608
	Grand total, Presidency	11,071,938	11,817,101	155,948	11,661,153	57,776

* Correct figure now adopted.

Annual Form No. 73.

Forest Department, Madras Presidency.

Area closed and open to grazing during 1924-25.

District.	Closed to all animals.		Open to grazing.			
			Of all animals except goats.		Of all animals except browsers (sheep and goats).	
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.
First Circle.						
Reserved forests.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Ganjam	94	..	531	..	..	..
Vizagapatam	16	..	229	..	62	..
Godavari, Upper ..	1	..	829	..	..	..
Do. Lower ..	51	..	518	..	..	..
Guntur	82	17	520	17	290	..
Nellore	186	501	40	..	..	..
Total ..	430	518	2,667	17	352	..
Reserved lands.						
Vizagapatam	..	..	2	..	..	..
Guntur	..	..	1	..	..	..
Total ..	..	..	3	..	..	..
Second Circle.						
Reserved forests.						
Bellary	26	..	536	..	..	..
Anantapur	22	..	692	..	..	..
Kurnool, East	30	(a) 270	670	..	..	..
Do. South ..	123	b) 266	385	..	..	..
Do. West ..	227	..	612	..	..	..
Cuddapah, North ..	84	..	513	..	..	..
Do. South ..	75	..	387	..	..	..
Do. West ..	61	..	685	..	..	..
Chittoor	134	..	689	..	..	..
Total ..	782	526	5,169	..	..	..
Reserved lands.						
Kurnool, South ..	..	..	3	..	..	..
Fourth Circle.						
Reserved forests.						
Chingleput	50	..	..	..	50	96
Vellore, North ..	54	2	392	..	..	..
Do. South ..	25	..	455	..	..	..
Do. West	9	..	373	..	..	..
Salem, East	81	3	484	..	..	..
Do. North	42	..	479	..	..	..
Do. Central	21	3	381	..	..	..
Do. South	9	..	354	..	..	..
Total ..	291	8	2,918	..	50	96

(a) Partially opened to grazing on account of drought.
(b) Temporarily opened to grazing during July and August 1924.

Area closed and open to grazing during 1924-25—*cont.*

District.	Closed to all animals.		Open to grazing.			
			Of all animals except goats.		Of all animals except browsers (sheep and goats).	
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.
FOURTH CIRCLE—*cont.*	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Reserved lands.						
Chingleput	..	..	..	..	..	..
Vellore, North ..	..	..	..	..	..	..
Do. South ..	(a) ..	..	..	..	..	..
Do. West ..	..	..	..	..	..	..
Salem, East ..	..	..	6	..	..	..
Do. North ..	..	..	3	..	..	..
Do. Central ..	6	..	6	..	..	..
Do. South ..	..	..	7	..	..	..
Total ..	6	..	22	..	..	..
FIFTH CIRCLE.						
Reserved forests.						
Kollegal	3	..	939	..	..	..
Coimbatore, North ..	31	..	740	..	..	..
Do. South ..	224	..	229	..	..	..
Madura	107	..	274	..	279	..
Tinnevelly	229	..	185	..	3	..
Total ..	594	..	2,367	..	282	..
SIXTH CIRCLE.						
Reserved forests.						
Mangalore, North ..	14	..	345	..	..	..
Do. South ..	4	..	435	..	..	..
Wynaad	..	..	..	..	*263	..
Nilambur	108	..	..	..	..	..
The Nilgiris	23	..	394	..	..	..
Palghat	160	..	103	..	..	..
Total ..	309	..	1,277	..	263	..
Reserved lands.						
Nilambur	19	..	..	..	..	..
The Nilgiris ..	9	..	73	..	..	..
Total ..	28	..	73	..	..	..
Grand total ..	337	..	1,350	..	263	..
Parlakimedi Maliahs ..	1	..	175	..	..	..
Grand total, Presidency.	2,441	1,052	14,674	17	947	96

(a) Represents area less than a square mile.

About 6 sq. miles of reserved forest in Central Salem division has been leased out for cultivation and consequently excluded from this return.

* Young plantations (about 478 acres) are closed to grazing.

ANNUAL FORM No. 74.

Forest Department, Madras Presidency.

Return of grazing in the State forests during 1924–25.

District.	Grazing on payment—Number of animals.									
	At enhanced or special rates.					At full rates.				
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
FIRST CIRCLE.					Rs.					Rs.
Reserved forests.										
Ganjam	..	..	..	..	..	(*a*) 6,866	(*a*) 37,751	(*a*) S 221	..	9,674
Vizagapatam ..	(*b*) 462	(*b*) 6,312	(*b*) 1,435	..	3,977	(*a*) 20	(*a*) 5,055	..	..	955
Gōdāvari, Upper.	..	..	..	..	..	..	..	..	..	..
Do. Lower.	(*d*) 1,526 (*e*) 7,889	(*d*) 4,139 (*e*) 7,379	(*d*) S 2,909 ..	..	9,031	(*a*) 2,720	(*a*) 14,746	(*a*) S 864	..	3,866
Guntur	(*b*) 10,685 (*e*) 1,039 (*d*) 442 ..	(*b*) 64,924 (*e*) 1,556 (*d*) 1,785 (*g*) 2,475	(*b*) S 119,017 (*e*) S 22,078 (*d*) S 3,412 ..	..	72,901 3,668 1,641 2,475	.. (*a*) 1,273	.. (*a*) 5,451 (*a*) 43,722 ..	.. (*a*) S 9,904	.. ..	.. 2,428 † 8,198 ..
Nellore	(*d*) 312	(*b*) 1,988	(*b*) S 111	..	1,256	..	(*a*) 5,787 (*a*) 406,507	.. ..	.. ..	† 1,085 * 76,220
Total ..	22,043	88,570	198,851	..	94,949	10,879	159,019	10,989	..	1,02,426
Unreserved lands.										
Gōdāvari, Lower (Rampa).	(*e*) 8,229	(*e*) 9,136	..	..	6,398	..	..	..	..	..
Grand total ..	30,272	97,706	198,851	..	1,01,347	10,879	159,019	10,989	..	1,02,426

Return of grazing in the State forests during 1924–25—*cont.*

District.	Grazing on payment—Number of animals—*cont.*						Grazing free—Number of animals.										
	At privileged rates.						By right under settlement.					During pleasure of Government or otherwise than under settlement.					
					Fees received.												
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Actual.	Value at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Total value of fees at full rates.	Grand total of value at full rates.
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
FIRST CIRCLE. —*cont.* *Reserved forests.* —cont.					Rs.	Rs.					Rs.					Rs.	Rs	Rs.
Ganjam	..	..	..	..	..	..	(*a*) 250	(*a*) 925	..	..	267	(*a*) 422	(*a*) 3,400	..	..	796	1,063	10,737
Vizagapatam ..	..	..	..	..	..	..	..	..	..	..	..	..	(*a*) 4,083	..	..	766	766	5,775
												..	(*b*) 153	..	..	77	77	
Godavari, Upper.	(*c*) 6,422	(*c*) 45,731	(*c*) S 9,941	..	7,943	11,915	..	..	..	..	..	(*a*) 4,663	(*c*) 40,238	(*a*) S 13	..	9,294	9,294	21,209
Do. Lower.	(*f*) 649	(*f*) 14,532	..	..	949	2,847	..	..	..	..	..	(*a*) 947	(*a*) 6,913	..	..	1,651	1,651	17,395
Guntur	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	91,311
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Nellore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	78,561
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Total ..	7,071	60,263	9,941	..	8,892	14,762	250	925	..	..	267	6,032	54,787	13	..	12,584	12,851	2,24,988
Unreserved lands.																		
Godavari, Lower (Rampa).	..	(*f*) 32	..	..	2	6	..	..	..	..	..	..	..	..	..	..	..	6,404
Grand Total ..	7,071	60,295	9,941	..	8,894	14,768	250	925	..	..	267	6,032	54,787	13	..	12,584	12,851	2,31,392

Note for First Circle.— S = Sheep. * Kancha fees. † Revenue from forests handed over to panchayat management.

(*a*) Six annas for buffalo, 3 annas per cow or bullock and 1 anna 6 pies per sheep.
(*b*) One rupee per buffalo, 8 annas per cow or bullock and 4 annas per sheep.
(*c*) Four annas per buffalo, 2 annas per cow or bullock and 1 anna per sheep.
(*d*) Twelve annas per buffalo, 6 annas per cow or bullock and 3 annas per sheep.
(*e*) Eight annas per buffalo, 4 annas per cow or bullock and 2 annas per sheep.
(*f*) One anna per buffalo and 1 anna per cow or bullock.
(*g*) One rupee per plough bull.

Abstract of animals permitted to grazing on payment in reserved forests and reserved lands.

First Circle.	Buffaloes	48,222
	Cows and bulls	317,020
	Sheep	219,781
	Total ..	585,023

Return of grazing in the State forests during 1924-25—*cont.*

District.	Grazing on payment—Number of animals.									
	At enhanced or special rates.					At full rates.				
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Second Circle.					Rs.					Rs.
						1,177	4,153	7,912	..	(a) 5,231
Bellary	..	..	..	..	..	4,834	24,654	68 169	..	(b) 12,826
						..	28,768	..	..	(f) 5,394
Anantapur ..	..	..	..	..	..	..	316	..	..	(f) 158
						2,424	13,211	34,771	..	(d) 17,116
Kurnool, East ..	..	..	..	..	..	1,208	20,187	377	..	(e) 22,791
							4,650	..	..	(f) 2,325
						2,414	15,445	33,241	..	(d) 17,843
Do. South ..	..	..	..	..	..	..	1,549	150	..	(e) 1,624
						..	240	..	..	(f) 120
						6,603	26,855	51,532	..	(g) 31,263
Do West ..	..	..	..	..	..	42	7,966	14	..	(e) 8,057
Cuddapah, North.	..	..	..	..	..	3,884	10,308	57,175	..	(b) 8,674
						..	11,961	..	..	(g) 11,961
Cuddapah, South.	..	..	..	..	..	424	17,174	19,174	..	(b) 5,177
						..	1,502	..	..	(g) 1,502
						2,807	26,176	49,890	.	(b) 10,638
Cuddapah, West.	..	..	..	..	..	..	19,952	..	..	(f) 3,741
						..	9,114	..	..	(g) 9,114
						1,866	73,302	41,290		(b) 18,387
Chittoor	5	373	100	..	(a) 216	..	7,214	..	..	(f) 3,607
						..	72	..	..	(g) 72
						..	..	..	..	(h) 85
Total ..	5	373	100	..	216	27,483	324,769	363,695	..	1,97,706

Note for Second Circle—
(a) Buffaloes Re 1, cows 8 annas and sheep 4 annas.
(b) Buffaloes 6 annas, cows 3 annas and sheep 1 anna 6 pies.
(d) Buffaloes 12 annas, cows 8 annas and sheep 4 annas.—
(e) Buffaloes Rs. 2, cows Re. 1 and sheep 8 annas (penta rates).
(f) Panchayat fees. The cow units shown in column 8 were arrived at the rate of 3 annas per cow unit in Bellary and West Cuddapah and 8 annas in other districts.
(g) Foreign cows at Re. 1.
(h) Kancha fees.

Return of grazing in the State forests during 1924-25—*cont.*

District.	Grazing on payment—Number of animals—*cont.*						Grazing free—Number of animals.									Total value of fees at full rates.	Grand total of value at full rates.
	At privileged rates.						By right under settlement.					During pleasure of Government or otherwise than under settlement.					
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.		Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	
					Actual.	Value at full rates.											
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
Second Circle —*cont.*					Rs.	Rs.					Rs					Rs.	Rs.	Rs.
Bellary	..	..	..	..	..	..	..	..	..	..	..	508	2,949	11,280	..	1,801	1,801	25,252
Anantapur ..	983	16,586	35,425	..	(*a*) 9,066	18,132	..	..	..	..	..	2,566	59,459	70,197	..	49,845	49,845	68,135
Kurnool, East.	..	..	..	..	..	..	..	320	1,675	..	1,157	535	883	343	..	2,124	3,281	45,513
Do. South.	..	..	..	..	..	..	12	11	57	..	29	..	..	..	..	..	29	19,616
Do. West.	..	..	..	..	..	..	261	202	330	..	379	..	..	..	..	..	379	39,699
Cuddapah, North.	..	200	575	..	(*a*) 30	91	..	..	..	..	..	55	95	500	..	85	85	20,811
Do. South.	..	..	..	..	..	..	..	559	..	..	105	..	..	..	..	..	105	6,784
Do. West.	..	222	..	..	(*a*) 21	42	..	..	..	..	..	..	..	..	..	..	..	23,535
Chittoor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22,367
Total ..	983	17,008	36,000	..	9,117	18,265	273	1 092	2,062	..	1,670	3,664	63,386	82,320	..	53,855	55,525	2,71,712

(*a*) Represent fees realized at eight annas per buffalo, four annas per cow and two annas per sheep for half-yearly permits issued in Anantapur district

One anna six pies per cow in West Cuddapah.

One anna six pies per cow and six pies per sheep in North Cuddapah.

Return of grazing in the State forests during 1924–25—*cont.*

District.	Grazing on payment—Number of animals.									
	At enhanced or special rates.					At full rates.				
	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Fees received.	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Fees received.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
					Rs.					Rs.
FOURTH CIRCLE.										
Chingleput ..	..	..	..	..	..	..	1,451	..	..	(i) 5,804
							7,456	..	..	(j) 14,911
Vellore, North ..	..	..	..	..	..	(c) 361	32,948	24,329	..	22,917
							1,374	..	..	(i) 2,748
							130	..	..	(k) 260
Do. South ..	(a) 51	5,899	1,726	..	6,864	(c) 88	22,986	4,057	..	12,595
							18,070	..	..	(i) 3,388
Do. West ..	(a) 3	9,760	..	..	9,765	(c) 200	21,439	3,611	..	11,822
							(i) 925	..	..	(i) 372
						(h) 1	5,475	4,434	..	3,570
Salem, East ..	..	..	..	..	..	(b) 165	29,674	3,240	..	17,789
						(a) 124	7,954	2,699	..	9,552
							13,133	..	..	(i) 11,804
							9,857	..	..	(l) 1,560
Do. North ..	..	..	..	..	..	(g) 946	44,827	766	..	23,315
Do. Central.	(b) 8	15,375	2,004	..	9,221		(o) 29,864	..	..	14,932
							2 293	..	..	(i) 1,290
Do. South ..	(a) 4	4,329	36	..	4,355	(b) 143	13,853	26,959	..	15,535
							14,112	..	..	(i) 7,970
Total ..	66	35,363	3,766	..	30,206	2,028	277,821	70,095	..	1,82,134

Return of grazing in the State forests during 1924-25—*cont.*

District.	Grazing on payment—Number of animals—*cont*						Grazing free—Number of animals.											Grand total of value at full rates.
	At privileged rates.						By right under settlement.					During pleasure of Government or otherwise than under settlement.					Total value of fees at full rates.	
					Fees received.													
	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Actual.	Value at full rates.	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Value of fees at full rates.	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Value of fees at full rates.		
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
Fourth Circle —*cont.*					Rs.	Rs.										Rs.	Rs.	Rs.
Chinglepat ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Vellore, North ..	(*f*) 99	1,155	69	..	260	694	..	..	..	..	..	..	81	..	..	15	15	20,730
													..	..	..	..	..	26,619
Do. South .	(*f*) 3,170	15,859	1,729	..	4,324	11,531	..	..	..	..	..	..	..	..	..	..	..	34,378
Do. West ..	..	(*e*) 1,677	..	..	419	839	..	..	..	..	..	..	..	..	..	..	..	32,395
	(*f*) 989	7,690	4,295		2,216	5,908												
	(*d*) 23	186	8		89	118												
Salem, East ..	(*f*) 23	1,159	..	..	226	678	..	..	..	..	..	..	..	..	..	..	..	41,383
Do. North ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	23,315
Do Central.	(*d*) 270	..	12,765	..	2,596	3,461	..	..	..	..	..	..	150	..	..	75	75	28,979
Do. South ..	(*d*) 1	5,135	3,124	..	2,512	3,762	..	..	..	..	..	..	..	..	..	.	..	31,628
Total ..	4,575	32,861	21,990	..	12,642	26,997	.	..	..	..	..	..	231	..	..	90	90	2,39,427

Note.—The sanctioned full rates per cow unit are—One rupee in South Arcot district, 8 annas in North Arcot district, 8 annas and 9 annas in Salem district and 9 annas in Trichinopoly district.

(*a*) 1 rupee per cow unit. (*b*) 9 annas per cow unit. (*c*) 8 annas per cow unit. (*d*) 6 annas per cow unit. (*e*) 4 annas per cow unit. (*f*) 3 annas per cow unit. (*g*) 8 annas a cow, 12 annas a buffalo and 4 annas a sheep. (*h*) 8 annas a cow, 12 annas a buffalo, and 3 annas a sheep. (*i*) Panchayat fees. (*j*) Kanchs rent. (*k*) Grazing rights revenue. (*l*) Grazing assessment in lump sum.

Abstract of animals permitted to graze on payment in the reserved forests and reserved lands in the Fourth Circle.—

Buffaloes—6,669. Bullocks and cows—346,045. Sheep—95,851.

Return of grazing in the State forests during 1924-25—*cont.*

District.	Grazing on payment—Number of animals.									
	At enhanced or special rates.					At full rates.				
	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Fees realized.	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Fees realized.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
FIFTH CIRCLE.					Rs.					Rs.
Kollegal ..	..	..	..	..	..	(*a*) 3,430	68,801	2,820	..	38,536
						..	82			(*h*) 13
Coimbatore, North.	(*b*) 50	958	257	..	(*a*) 1,187	3,457	61,232	50	..	39,883
	(*b*) ..	294	48	..	318	8	1,143	23,041	..	(*a*) 728
								596	..	(*j*) 216
Coimbatore, South.	..	..	..	..	..	61	8,172	330	(*g*) 3	4,260
						(*c*) 377	..	.		(*i*) 283
						..	600	..	..	(*a*) 300
Madura ..	..	..	..	..	..	(*d*) ..	29,068	1,660	87	22,489
						(*e*) 131	5,470	4,221	..	1,961
						..	9,200	..	..	(*a*) 2,300
Tinnevelly ..	..	.	..	..	..	(*c*) ..	671	..	..	(*a*) 335
						697	12,818	13,304	..	10,432
						(*f*) 114	2,242	7,469	..	1,163
						..	4,987	..	..	(*a*) 935
Total ..	50	1,252	305	..	1,505	8,275	204,486	53,491	90	1,23,784

Note for Fifth Circle.—

(*a*) Relates to panchayat areas and Forest Village system.
(*b*) Penal rates realized in North Coimbatore district—Rs. 2 per buffaloe, Re. 1 per cow or bullock, and As. 8 per sheep.
(*c*) Full or normal rates for the three divisions of Coimbatore and for all ranges excepting Tinnevelly range in Tinnevelly district—Re. 1 per buffaloe, As. 8 per cow or bullock and As. 4 per sheep.
(*d*) Full or normal rates for all ranges in Madura district except Kodaikanal and Sholavandan range (portion)—Rs. 1-8 per buffaloe, As. 12 per cow or bullock and other animal and As. 6 per sheep.
(*e*) Full or normal rates for Kodaikanal and Sholavandan range (portion)—As. 8 per buffaloe, As. 4 per cow or bullock, and As. 2 per sheep.
(*f*) Full or normal rates for Tinnevelly range—As. 6 per buffaloe, As. 3 per cow or bullock, and As. 1½ per sheep.

Return of grazing in the State forests during 1924-25—cont.

	Grazing on payment—Number of animals—*cont.*						Grazing free—Number of animals.											
	At privileged rates.						By right under settlement.					During pleasure of Government or otherwise than under settlement.						
	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Fees received.		Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Value of fees at full rates.	Buffaloes.	Cows and bullocks.	Sheep.	Other animals	Value of fees at full rates	Total value of fees at full rates.	Grand total of value at full rates.
					Actual.	Value at full rates.												
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
FIFTH CIRCLE. —*cont.*											Rs.					Rs.	Rs	Rs.
Kollegal ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	38,536
Coimbatore, North.	* ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	42,295
Coimbatore, South.	* ..	..	..	..	..	..	..	..	..	..	..	..	30	..	..	15	15	4,858
Madura ..	..	..	..	..	..	..	468	3,788	731	..	1,272	..	..	..	..	..	1,272	28,022
	*																	
Tinnevelly ..	..	..	..	..	..	..	..	..	..	..	..	..	989	..	..	185	185	13,050
	*																	
Total ..	..	..	..	..	..	..	468	3,788	731	..	1,272	..	1,019	..	..	200	1,472	1,26,761

(*g*) Elephants at Rs. 10.
(*h*) Fees realized by issue of permits for lost ones at one-fourth rate.
(*i*) Fees realized for grazing in Udumalpet range, South Coimbatore district, until receipt of sanction for the scheme, at 12 As. per buffaloe
(*j*) Amount remitted by a Permit Issuing officer but permits not issued.

Return of grazing in the State forests during 1924-25—*cont.*

District.	Grazing on payment—Number of animals.									
	At enhanced or special rates.					At full rates.				
	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Fees realized.	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Fees realized.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
SIXTH CIRCLE.					Rs.					Rs.
Reserved forests.										
Mangalore, North.	..	..	..	..	..	1,440	13,246	..	..	5,867
Mangalore, South.	..	..	..	..	..	2,337	16,131	..	..	7,510
Wynaad ..	..	..	..	..	..	2,662	4,308	..	..	4,816
Nilambur ..	..	..	..	..	..	..	..	..	..	..
Nilgiris (*a*) ..	35	2,389	2	.	1,230	11,045	18,056	1,887	..	7,704
Palghat (*b*) ..	..	600	..	..	600	21	6,658	1,808	..	(*f*) 3,802
Total ..	35	2,989	2	..	1,830	17,505	58,399	3,695	..	29,699
Reserved lands.										
The Nilgiris ..	..	..	..	..	..	..	..	..	..	..
Total, VI Circle.	35	2,989	2	..	1,830	17,505	58,399	3,695	..	29,699
Parlakimedi maliahs.	2,077	1,926	..	..	1,140	..	..	..	..	..
Grand total, Presidency	32,515	139,109	203,024	..	1,36,244	66,170	104,494	501,965	90	6,35,749

Note for Sixth Circle—

(*a*) Buffaloe, Re. 1 ; cow, As. 8 ; sheep, As. 4.

(*b*) Cow, Re. 1.

(*c*) Cattle admitted to Kulkunda cattle fair at As. 2 per head.

* Calves—half rate.

(*d*) Slaughter cattle-cows As. 3 per 50 per day ; sheep 1½ anna per day.

(*e*) Relates to panchayats.

(*f*) Relates to panchayats and represents estimated unmber of cattle based on panchayat agreements.

Return of grazing in the State forests during 1924–25—cont.

District.	Grazing on payment—Number of animals—*cont.*						Grazing free—Number of animals.										
	At privileged rates.						By right under settlement.					During pleasure of Government or otherwise than under settlement.					
	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Fees realized.		Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Value of fees at full rates.	Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Value of fees at full rates.	Total value of fees at full rates.	Grand total of value at full rates.
					Actual.	Value at full rates.											
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
SIXTH CIRCLE —*cont.* *Reserved forests* —cont.					Rs.	Rs.					Rs.					Rs.	Rs.	Rs.
Mangalore, North.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5,867
Mangalore, South.	..	(c)14,257	..	..	1,782	5,346	..	..	..	..	..	..	..	..	..	..	..	12,856
Wynaad ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,816
Nilambur ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nilgiris (*a*) ..	..	(*d*) 4,400	(*d*)18,600	..	104	2,569	..	..	..	..	..	451	226	..	..	212	212	11,715
Palghat (*b*) ..	..	(*e*) 1,794	..	..	(*e*)1,636	1,636	..	..	..	..	..	..	561	..	..	561	561	6,599
Total ..	..	20,451	18,600	..	3,522	9,551	..	..	..	..	..	451	787	..	..	773	773	41,853
Reserved lands —cont.																		
The Nilgiris ..	..	..	..	..	..	..	..	..	..	..	..	1,397	..	..	..	524	524	524
Total, VI Circle.	..	20,451	18,600	..	3,522	9,551	..	..	..	..	..	1,848	787	..	..	1,297	1,297	42,377
Parlakimedi maliahs.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,140
Grand total, Presidency.	12,629	130,615	86,531	..	34,175	69,581	991	5,805	2,793	..	3,209	11,644	120,220	82,333	..	68,026	71,235	9,12,809

* Calves—half rate.

Abstract of animals permitted to graze on payment in reserved forests and reserved lands in the Presidency.

Circle.	Buffaloes.	Bullocks and cows.	Sheep.	Other animals.	Total.
First Circle	48,222	317,020	219,781	..	585,023
Second ,, ...	28,471	342,150	399,795	..	770,416
Fourth ,, ...	6,669	346,045	95,851	..	448,565
Fifth ,, ...	8,325	205,738	53,796	90	267,949
Sixth ,, ...	17,540	81,839	22,297	..	121,676
Parlakimedi Maliahs.	2,077	1,926	..	..	4,003
Grand total ..	111,304	1,294,718	791,520	90	2,197,632

ANNUAL FORM No. 75-A.

Forest Department, Madras Presidency.

Progress in reproduction and afforestation under working plans or schemes during the year 1924–25.

Annual Form No. 75-A.

Forest Department, Madras Presidency.

Progress in reproduction and afforestation under working plans or schemes during the year 1924–25.

Division.	Working circle and block.	Period.	Area to be regenerated during period.	Method of treatment.	Area in which regeneration was in progress at commencement of year 1st April 1924.	Area on which regeneration commenced during the year, 1st April 1924 to 31st March 1925.	Area on which regeneration is complete. Previous.	Area on which regeneration is complete. During year, 1st April 1924 to 31st March 1925.	Area on which regeneration is complete. Total to 31st March 1925.	Area on which regeneration is still in progress at close of year 31st March 1925.	Expenditure during the year. Creation.	Expenditure during the year. Upkeep.	Expenditure from commencement of period. Creation.	Expenditure from commencement of period. Upkeep.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	First Circle.	YEARS.	ACS.		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	RS.	RS.	RS.	RS.
Godavari, Lower. Ganjam.	Plains—Sal Timber Working Circle.	1919–20 to 1934–35.	2,506	Clear felling and natural regeneration.	Nil.	201	365	201	1,066	Nil.	857	840	4,337	3,303
	Ravine Working Circle ..	1920–21 to 1939–40.	2,605	Do.	Nil.	Nil.	255	Nil.	255	Nil.	Nil.	Nil.	3,038	970
	New Casuarina Plantation, Kandikuppa Reserve.	10 years from 1923–24.	568	..	20	65	..	..	..	85	680	..	1,171	..
	Total ..	..	5,679	..	20	266	1,120	201	1,321	85	1,537	840	8,546	4,273
	Second Circle.											RS. A.	RS. A. P.	RS. A.
Bellary, Anantapur.	Kurnool East, Kurnool South, Cuddapah North, Cuddapah South, Chittoor—Nil.													
	Amagondapalaiyam R.F. compartments I and II (*a*).	1924–25.	PTS. ACS. 2 of 2 each.	Dibbling of seeds under the shade of host plants.	PTS. ACS. 13 of 2 each.	Nil.	26	..	26	26	..	38 4	158 6 6	112 4
	Penukonda R.F. compartments I and II.	Do.	1 of 2	Do.	3 of 2 each	Nil.	6	..	6	6	..	..	5 7 0	7 0
	Gundumala R.F. compartments I and II.	Do.	Do.	Do.	4 of 2 each	Nil.	8	..	8	8	..	..	9 0 0	8 0
	Madakasira R.F. North compartments I and II.	Do.	Do.	Do.	4 of 2 each	Nil.	8	..	8	8	..	..	..	4 0

Kurnool, West.	*Ratnagiri R.F.*, compartments I and II.	*Do.*	*Do.*	*Do.*	*7 of 2 each*	*Nil.*	14	..	14	14	..	..		6 0
	Total ..	..	..	..	31	Nil.	62		62	62	..	38 4	172 13 6	137 4
	Veldurti Interim Working Plan (*b*).	10	15 acres operation repeated in these 15 acres from 1921-22. Success not yet assured.	A modification under the sanction accorded by the working scheme, viz., ploughing whole area, sowing in lines 20 feet apart forest species intervening spaces occupied by field crops. Lines of forest species are mulched to a width of 2 feet on either side of seedlings.	15	*15	..	..	..	15	8	..	48 0 0	191
West Cuddapah.	Chenulabailu improvement felling series of Cuddapah Working Plan (Palakondas) (*c*).	1924-25.	Not specified.	Ploughing and sowing seeds in pits 10 feet apart of red sanders Abhizzia Lebbek, Margosa seeds weeding and watering the plants.	Nil.	10	..	10	10	Nil.	115 15	..	115 15 0	..
	Ganganapalli felling series of Ganganapalle (*d*).	Do.	Nil.	Collection of red sanders seeds.	Nil.	..	..	..	..	..	4 11	..	5 13 0	..
	Idupulapaya palmyra plantation (*e*).	Do.	Nil.	Sowing of 2,000 palmyrah seeds in blanks.	Nil.	3	..	6	6	..	..	..	16 8 0	..
	Total ..	..	..	..	..	..	..	..	..	..	128 10	..	186 4 0	..
	FOURTH CIRCLE.													
North Vellore.	Virinchipuram Working Circle.	1924-25.	Blanks in felled coupes.	Dibbling seeds of timber species.	..	..	283	..	283	..	..	287	9,552	55,688
	Chennur Working Circle.	Do.	Do.	Do.	..	..	142	..	142	..	..	192	4,623	3,586
	Kilminnal Working Circle.	Do.	Do.	Do.	..	..	104	..	104	..	..	141	3,157	26,143
	Tiruvallam Working Circle.	Do.	Do.	Do.	..	..	111	..	111	..	..	288	7,319	59,910
	Total ..	..	..	..	..	..	640	..	640	..	..	908	24,651	1,45,277

* In the old plot.

Note for Second Circle ..

(*a*) No new plots were opened out during the year, but only plots 6 to 13 of previous years were redibbled.

(*b*) Palmyra sowing was done in Veldurthi. Other cultural operations executed by patrol staff free of cost.
Result.—On account of constant mulching and covering the bed with grass, the Yepi seedlings which withstood the hot weather, died or account of rains.

(*c*) For regenerating blanks in Chelabylapenta.

(*d*) For sowing in Neerukonda Ganganapalli R.F.

(*e*) Dibbled free of cost during the year.

Progress in reproduction and afforestation under working plans or schemes during the year 1924-25—*cont.*

Division.	Working circle and block.	Period.	Area to be regenerated during period.	Method of treatment.	Area in which regeneration was in progress at commencement of year 1st April 1924.	Area on which regeneration commenced during the year, 1st April 1924 to 31st March 1925.	Area on which regeneration is complete.			Area on which regeneration is still in progress at close of year, 31st March 1925.	Expenditure during the year.		Expenditure from commencement of period.	
							Previous.	During year 1st April 1924 to 31st March 1925.	Total to 31st March 1925.		Creation.	Upkeep.	Creation.	Upkeep.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	FOURTH CIRCLE—*cont.*	YEARS.	ACS.		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	RS.	RS.	RS.	RS.
South. Vellore	Gingee Range	..	Blanks in felled coupes.	Sowing seeds in fuel coupes.	..	..	48	..	48	..	..	..	.	..
East Salem.	Salem East Range Working Plan.	20	1,453	Sowing and dibbling seeds	1,435	Nil.	1,435	Nil.	1,435	Nil.	Nil.	Nil.	589	..
	Attur Range Working Plan	20	1,840	Tending and sowing	1,433	..	1,433	..	1,433	..	..	212	67	..
	Ponniar Working Circle.	30	Nil.	Nil.	87	..	87	..	87	..	..	68	..	..
	Elavambadi Working Circle	30	Nil.	Nil.	83	..	83	..	83	..	..	35	..	..
	Harur Working Circle ..	30	Nil.	Sowing and dibbling seeds.	2,222	..	2,222	..	2,222	..	.	1,325	5	..
	Chitteri North Working Circle.	30	Nil.	Nil.	336	..	336	..	336	..	..	46	56	..
	Chitteri South-west Working Circle.	25	Nil.	Nil.	180	..	180	..	180	..	..	94	94	..
	Chitteri Sandal Working Circle.	5	2,750	Tending and sowing seeds.	611	..	611	..	611	.	..	141	231	..
	Kottapatti Sandal Working Circle.	5	1,280	Nil.	987	..	987	..	987	..	..	97	339	..
	Tirukoilur Range Working Circle.	30	205	Sowing seeds of avaram, etc., in felled coupes.	221	..	221	..	221	..	..	..	..	..
	Total ..	..	7,528	..	7,595	..	7,595	..	7,595	..	..	2,018	1,381	..

Central Salem.	*(a) Mainly Natural.*													
	*Manjavadi Sandal Felling Series Coupes I to V.**	..	..	....	..	..	120	..	120	..	..	45	128	180
	Papireddipatti Sandal Felling Series Coupes I to V.*	..	..	....	..	..	120	..	120	..	..	..	175	180
	Kuriohi Sandal Felling Series Coupes III to V.*	..	..	....	..	..	69	..	69	..	..	..	44	..
	(b) Mainly Artificial.													
	Shevaroys Central Working Circle.	4	321	Planting silver Oak and Cypress and sowing seeds of Australian wattle.	..	..	143	..	143	..	..	..	9,096	..
	Ramaswamimalai Series.	30	2,107	....	..	66	172	44	216	22	..	..	..	..
	Manakondamalai do.	..	..	....	..	75	124	75	199	..	2	..	2	..
	Gundakkal do.	..	..	....	..	58	127	50	177	8	..	..	..	..
	Thoppur, North do.	..	..	....	..	117	287	49	336	68	1	..	1	..
	Do. South do.	..	..	....	..	94	175	..	175	94	..	..	..	..
	Vanavasi Railway working Circle.	5	1,317	Dibbling seeds of indigenous species or ploughing land and sowing seed broad cast.	..	..	..	..	..	..	..	..	..	..
	Vanavasi Charcoal working Circle.	..	847	....	..	..	..	..	..	..	..	..	..	..
	Sholapadi Charcoal Working Circle.	30	935	Sowing seeds of indigenous species.	..	..	184	.	184	..	..	..	..	..
	Pappireddipatti Sandal Felling Series.	..	..	....	..	50	..	50	50	..	13	..	13	..
	Manjavadi Sandal Felling Series.	..	..	....	..	50	..	50	50	.	13	..	13	..
	Total ..	..	5,527	....	..	510	1,521	318	1,839	192	29	45	9,472	360
Salem, South.	*Vaiyampatti Range.*													
	Veeramalai Working Circle.	1919-20 to 1924-25.	587	(1) Felling fuel coupes under 'simple coppice'.	40	120	427	40	467	120	..	..	15	..
	Shemmalai Working Circle.	Do.	769		74	115	580	159	739	30	..	..	43	..
	Karuppur Reddiapatti Working Circle.	Do.	588		..	84	504	84	588	..	..	..	17	..
	Sorupam Panjanthangi Working Circle.	Do.	249	(2) Sowing seeds of indegenous timber species.	29	30	190	44	234	15	..	..	22	..
	Musiri Range.													
	Ammapalayam Working Circle.	1923-24 to 1924-25	39		..	20	19	20	39	..	..	..	..	..
	Sorupam Working Circle.	1924-25.	35		..	35	..	35	35	..	..	..	..	..

* These are the specially tended plots in sandal coupes and they should be maintained until the seedlings grow beyond the reach of cattle.

Progress in reproduction and afforestation under working plans or schemes during the year 1924-25—*cont.*

Division.	Working circle and block.	Period.	Area to be regenerated during period.	Method of treatment.	Area in which regeneration was in progress at commencement of year—1st April 1924.	Area on which regeneration commenced during the year—1st April 1923 to 31st March 1925.	Area on which regeneration is complete.			Area on which regeneration is still in progress at close of year—31st March 1925.	Expenditure during the year.		Expenditure from commencement of period.	
							Previous.	During year—1st April 1923 to 31st March 1925.	Total to 31st March 1925.		Creation.	Upkeep.	Creation.	Upkeep.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	FOURTH CIRCLE—*cont.*	YEARS.	ACS.		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	RS.	RS.	RS.	RS.
	Perambalur Range.													
South—*cont.*	Ladapuram Working Circle.	1923-24 to 1924-25.	41	(1) Felling fuel coupes under 'Simple coppice' (2) Sowing seeds of indigenous timber species.	..	22	19	22	41	..	..	..	..	..
	Thondamanthurai Working Circle.	Do.	37		..	16	21	16	37	..	..	..	..	..
	Arasalur Working Circle.	1921-22 to 1924-25	121		..	39	82	39	121	..	..	..	..	..
	Vilangudi Working Circle	1921-22 to 1924-25	538	(1) Felling fuel coupes, reserving specified trees as standards. (2) Sowing valuable timber species to restock blanks.	20	156	362	152	514	24	..	..	2	..
	Alavoy do.	Do.	516		..	122	394	112	506	10	..	..	2	..
	Periyavalayam do.	Do.	365		..	80	285	80	365	..	..	..	..	..
	Siluvacheri do.	Do.	306		..	119	187	119	306	..	..	..	2	..
	Mudukulam do.	Do.	569		73	164	332	224	556	13	..	..	2	..
	Tirukonam do.	Do.	424		..	113	311	113	424	..	..	..	52	..

Namakkal Range.													
Karavallijambuthu Working Circle.	1918-19 to 1924-25	268	(1) Felling fuel coupes under 'Simple coppice.'	36	46	186	62	248	20	15	..	15	..
Thammampatti Range.													
Mavar Working Circle ..	1921-22 to 1924-25	101	(2) Sowing seeds of indigenous timber species.	16	25	60	36	96	5	..	..	..	..
Gangavalli Working Circle.	1922-23 to 1924-25	116		..	35	81	25	106	10	..	..	..	..
Total ..	..	5,669	....	288	1,341	4,040	1,382	5,422	247	15	..	172	..
Grand total of the Circle.	..	18,724	....	7,883	1,851	13,844	1,700	15,544	439	44	2,971	35,676	1,45,637
FIFTH CIRCLE.													
Mount Stuart Working Circle.													
1923 regeneration area ..	..	..	..	..	..	193·80	..	193·80	..	..	571	5,055	5,293
1922 do. ..	..	..	..	..	..	126·08	..	126·08	..	..	53	3,358	3,437
Mudi plantation	..	..	..	..	..	8·80	..	8·30	..	..	..	..	..
Waterfall plantation ..	..	..	..	..	..	11·58	..	11·58	..	..	..	..	..
1918-19 regeneration area.	..	..	..	..	..	28·50	..	28·50	..	..	115	643	564
1919-20 do.	..	..	..	..	..	8·30	..	8·30	..	..	5	584	361
1920-21 do.	..	..	..	..	..	29·10	..	29·10	..	..	25	545	1,081
Experimental plantation at top slip.	..	..	..	..	..	1·50	..	1·50	..	..	15	..	27
Experimental plantation at Mount Stuart.	..	..	..	..	..	5·00	..	5·00	..	..	18	..	21
Experimental plantation at Karian shola.	..	..	..	..	..	0·50	..	0·50	..	..	..	..	..
1924 regeneration area ..	..	..	..	..	..	226·00	..	226 00	..	872	3,894	6,759	3,894
1925 do. ..	1st Apr. 1924 to 31st March 1925.	250	Clearing, burning and dibbling teak and other seeds.	250	260	..	260	260·00	.. *	5,086	..	5,086	..
Punachi Working Circle.													
Regeneration plots in Coupes IX and X.	..	..	..	..	..	5·00	..	5·00	..	..	..	86	122
2-acre plot in Coupe II ..	..	..	..	..	..	2·00	..	2·00	..	..	..	75	27
3-acre plot in Coupe XV..	..	..	..	..	..	3·00	..	3·00	..	..	..	146	98
10-acre plot in Coupe XV.	..	..	..	..	..	10·00	..	10·00	..	..	121	245	404

* Regeneration is in progress in the 1925 areas, the work being incomplete.

Progress in reproduction and afforestation under working plans or schemes during the forest year 1924-25—*cont.*

Division.	Working circle and block.	Period.	Area to be regenerated during period.	Method of treatment.	Area on which regeneration was in progress at commencement of year—1st April 1924.	Area on which regeneration commenced during the year—1st April 1924 to 31st March 1925.	Area on which regeneration is complete.			Area on which regeneration is still in progress at close of year—31st March 1925.	Expenditure during the year.		Expenditure from commencement of period.	
							Previous.	During year—31st April 1924 to 31st March 1925.	Total to 31st March 1925.		Creation.	Upkeep.	Creation.	Upkeep.
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	FIFTH CIRCLE—*cont.* *Punachi Working Circle*—cont.		ACS.		ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	RS.	RS.	RS.	RS.
Coimbatore, South—*cont.*	1924 regeneration area in Coupes XIV and XV.	..	..	..	..	..	25·00	..	25·00	..	85	860	524	860
	1925 regeneration area in Coupes XII and XIII.	1st Apr. 1924 to 31st Mar. 1925.	25	Clearing, burning and dibbling teak and other seeds.	..	25	..	25	25·00	..*	338	..	338	..
Coimbatore, North.	Mettupalayam range, Manar Sandal Working Circle.		66	Dibbled with sandal seeds.	..	66	..	66	66·00	..	50	..	50	..
	SIXTH CIRCLE.													
Nilambur.	Plantation Working Circle.	Do.	85	Artificial regeneration.	53†	172	(*c*) 6,733	† 29 †103	6,865	196 192	10,021 -3,143 (*a*)	9,486 — 913 (*a*)	5,52,986 (*b*)	5,50,897 (*b*)
	Conversion do.	Do.	To be fixed by the District Forest Officer.	Do.	161†	144								
	Coconut plantation ..	Do.	..	Do.	..	..	37	..	37	..	..	249	884	6,958
	Other divisions—Nil. Total ..		85	..	214	316	6,770	132	6,902	388	6,878	8,822	5,53,870	5,57,855
	Grand total, Presidency ..		24,855	..	8,444	2,812	22,480 16	2,400	24,880 16	989	15,019	18,348	6,21,945	7,24,282

Note on the Fifth Circle.—The difference between figures in column (8) of the return and column (10) of the previous return is due to furnishing correct areas now. The areas shown in 1923-24 under Tinnevelly are omitted as there is nothing to show them on the ground.

* Regeneration is in progress in the 1925 areas, the work being incomplete.

Note for the Sixth Circle—

† The difference between columns (6) and (9) is due to the elimination of unsuccessful areas in the year (73 acres) and to the area of 9 acres handed over to the Forest Research Officer for experiment.

(*a*) Relates to failed areas. (*b*) Revised figures.

ANNUAL FORM No. 75-B.

Forest Department, Madras Presidency.

Plantations not under working-plans during the forest year 1924–25.

ANNUAL FORM

Forest Department,

Plantations not under working-plans

Division and forest.	Method of formation and year of commencement.	Area in acres.			
		At commencement of year, 1st April 1924.	Added during year, 1st April 1924 to 31st March 1925.	Excluded during year, 1st April 1924 to 31st March 1925.	On 31st March 1925.
(1)	(2)	(3)	(4)	(5)	(6)
FIRST CIRCLE.					
Regular Plantation.					
Guntur	Muthayapalam Casuarina.	..	5	..	5
	Muthayapalam 1912–13 ..	5	..	..	5
	Venkatayapalam 1912–13..	12	..	..	12
Nellore	Planting	1,682	..	1,520	162
	Total ..	1,699	5	1,520	184
Taungya Operations.					
Godavari, Upper	Taungya operation ..	98	..	..	98
Cultural Operations.					
Vizagapatam	1st March 1895	51	..	15	36
Godavari, Upper	Clear-felling to establish a better quality of trees, and artificial regeneration of blanks (burnt patches) in the clear-felled areas by ploughing and sowing including special tending for four years from 1921–22.	465	305	..	770
Godavari, Lower	....	8	..	..	8
Nellore	....	416	..	416	..
	Total ..	940	305	431	814
SECOND CIRCLE.					
Regular Plantations.					
Bellary Moka	1907 to 1913	489	..	..	489
Anantapur	Do.	..	..	..	..
Kurnool, East	Not known	122	..	..	122
Do. South	....	110	69	..	179
Do. West	1905–06	1,230	..	(a) 76	1,154
Cuddapah, North.. ..	Nil.	..			
Do. South	Kodur Sanders 1865 ..	20	..	..	20
		..	..	..	..
Do West	Nil.	..			
Chittoor, Palmaner range.	Planting and Natural Red Sanders and Sandalwood	61	..	..	61
	Total ..	2,032	69	76	2,025

(a) Represents the unsuccessful area of Pesurutla and Rudracode plantations.

No. 75-B.

Madras Presidency.

during the forest year 1924–25.

Expenditure total during year.		Expenditure from commencement.			Total area written off from start.	Expenditure in failed areas.	Expenditure from commencement excluding failed areas.	Revenue during the year.	Total revenue from date of creation.
Creation. (7)	Upkeep. (8)	Creation. (9)	Upkeep. (10)	Total. (11)	(12)	(13)	(14)	(15)	(16)
Rs.	Rs.	Rs.	Rs.	Rs.	Acs.	Rs.	Rs.	Rs.	Rs.
193	..	193	..	193	..	..	193	..	..
..	..	22	..	22	..	..	22	..	..
..	..	26	..	26	..	..	26	..	..
..	43	1,56,709	17,342	1,74,051	1,520	1,74,008	43	1,527	3,18,896*
193	43	1,56,950	17,342	1,74,292	1,520	1,74,008	284	1,527	3,18,896
..	42	383	511	894	..	347	547	..	3,609
..	102	2	2,518	2,520	..	..	2,520	1,620	7,280
9,617	275	26,268	340	26,608	..	..	26,608	23,407	60,566
..	..	112	462	574	..	320	574	.	..
..	..	2,800	38	2,838	416	..	..	..	225*
9,617	377	20,182	3,358	32,540	416	320	29,702	25,027	68,071
..	221	7,958	53,720	61,678	90	11,312	61,678	713	8,004
..	..	..	..	..	..	..	..	..	..
..	64	38,471	26,109	64,580	9	4,489	60,091	..	..
502	..	2,257	.	2,257	..	26	2,231	..	..
..	..	2,92,254	69,609	3,61,863	276	56,304	3,05,559	4,542	24,761
..	120	23	1,345	1,368	..	..	1,385	(*c*) 427	12,873
..	(*b*) 20	..	20	20	..	..	..	..	..
..	523	..	12,050	12,050	..	..	..	150	150
502	948	3,40,963	1,62,853	5,03,816	375	72,131	1,60,944	5,852	45,788

(*b*) Spent for the construction of a water lift to the plantation.

(*c*) Amount realized by the sale of sandalwood extracted from this plantation through the District Forest Officer, South Vellore, and credited in his accounts for the year.

* Correct figures.

Plantations not under working-plans

Division and forest.	Method of formation and year of commencement.	Area in acres.			
		At commencement of year, 1st April 1924.	Added during year, 1st April 1924 to 31st March 1925.	Excluded during year, 1st April 1924 to 31st March 1925.	On 31st March 1925.
(1)	(2)	(3)	(4)	(5)	(6)
SECOND CIRCLE—*cont.*					
Taungya Plantations.					
Kurnool, East	Not known..	40	..	40	..
Do. West	1921-22	312	..	..	312
Other districts	Nil.	..	..	..	..
	Total ..	352	..	40	312
Cultural operations.					
Bellary	Kupgal and Banavasi 1905-06.	792	..	..	792
Kurnool, East ..	.. ..	790	..	(*a*) 6 2	158
Do. South	....	12	..	..	12
Do West	1919-20	6,957	161	..	7,118
Chittoor	Dibbling-1919-20, 1921-22, 1922-23.	844	126	5	965
Other districts	Nil.	..	..	..	..
	Total ..	9,395	287	637	9,045
THIRD CIRCLE—Nil.					
FOURTH CIRCLE.					
Vellore, North—					
Palamady Plantation ..	Planting 1893	130·00	..	..	130·00
Ambur Tope	Planting 1913	6 00	..	..	6·00
Pichanur Tope	Planting	31·00	..	..	31·00
	Total ..	167·00	..	..	167·00
Vellore, South—					
Amerdi Plantation ..	Clear felling and artificially stocking with timber species 1912-13.	87·25	..	..	87·25
Muttakadu Plantation.	Do. 1921-22. ..	5·00	..	..	5·00
	Total ..	92·25	..	..	92·25
Salem, Central—					
Kurumbapatti	Sowing 1920-21 ..	1·75	..	..	1·75
Ayyanthirumaligai ..	Sowing 1923-24 ..	* ..	..	..	..
	Total ..	1·75	..	..	1·75
	Grand total .	261·00	..	..	261,00

* Conservator's bungalow compound.

NOTE.—The figures for North Vellore and Central Salem are the revised and correct figures furnished by the District Forest Officers.

(*a*) Eliminated as they were unsuccessful.

during the forest year 1924–25—*cont.*

Expenditure total during year.		Expenditure from commencement.			Total area written off from start.	Expenditure in failed areas.	Expenditure from commencement excluding failed areas.	Revenue during the year.	Total revenue from date of creation.
Creation. (7)	Upkeep. (8)	Creation. (9)	Upkeep. (10)	Total. (11)	(12)	(13)	(14)	(15)	(16)
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
..	..	195	..	195	40	195	..	..	..
..	120	5,837	120	5,957	..	..	..	523	718
..	..	..	..	..	..	..	..	..	..
..	120	6,032	120	6,152	40	195	..	523	718
..	40	3,795	707	4,502	5,998	26,525	4,502	..	..
..	191	12,440	4,298	16,738	632	15,748	990	..	..
622	..	1,014	..	1,636	..	..	..	..	..
812	1,325	33,283	8,812	42,095	..	..	..	..	254
199	114	1,738	2,436	4,174	5	..	135	..	..
..	..	..	..	..	..	..	..	..	..
1,633	1,670	52,270	16,253	69,145	6,635	37,273	5,627	..	254
..	..	..	1,965	1,965	..	..	1,965	37	322
..	..	..	3	3	..	..	3	247	1,089
..	147	..	681	681	..	..	681	223	905
..	147	..	2,649	2,649	..	..	2,649	507	2,316
..	71	3,102	1,856	4,958	..	..	4,958	34	6,829
..	10	28	26	54	..	..	54	..	40
..	81	3,130	1,882	5,012	..	..	5,012	34	6,869
..	..	202	34	236	..	..	..	..	..
..	69	131	69	200	..	..	..	..	..
..	69	333	103	436	..	..	..	..	..
..	297	3,463	4,634	8097	..	..	7,661	541	9,185

Plantations not under working-plans

Division and forest.	Method of formation and year of commencement.	Area in acres.			
		At commencement of year, 1st April 1924.	Added during year, 1st April 1924 to 31st March 1925.	Excluded during year, 1st April 1924 to 31st March 1925.	On 31st March 1925.
(1)	(2)	(3)	(4)	(5)	(6)
FIFTH CIRCLE.					
Coimbatore, North—					
Minchigully plantation.	Dibbling teak, vengai and rosewood seeds, watering and weeding, 1918.	164	..	..	164
Ainagiri plantation ..	Planting seedlings, etc., of shola species, 1918.	42	..	..	42
Experimental plantation at Karaipalayam.	Planting teak, rosewood, vengai, etc., and watering and weeding.	..	1		1
Madura—					
Gundan Shola	....	257	..	12	245
Pamban pine plantation.	1906	1,044	..	202	842
Gundan Valley ..	Planting accacia decurreens	148	..	..	148
Valacombai teak plantation.	....	14	4	..	18
Vannathiparai teak plantation.	Planting teak, 1870 ..	3	1	..	4
Sethuvoikal or Vannathiparai new plantation.	Planting teak, 1920-21 ..	61	..	8	53
Alagar hills	Planting mahagony ..	3	..	..	3
Tinnevelly—					
Kudiramoliteri	Dibbling palmyra seeds, etc.,	5,228	..	2,160	3,068
Valliyur reserve ..	1905	108	..	108	..
Kodamady teak plantation.	1917	86	25	..	111
Kariar teak plantation .	1922-23	56	31	..	87
Richmond plantation ..	1906.	1	..	..	1
Kariarkani area ..	Taungya plantation, 1912.	23	..	..	23
Haynes plantation ..	....	23	..	..	23
Total ..	....	7,261	62	2,490	4,833
SIXTH CIRCLE.					
Mangalore, North—					
Someshwar	Sowing by cutting lines and staking.	159	..	..	159
Jattukattumala ..	Do. do.	1,295	..	..	1,295
Halesomeshwar ..	Do. do.	1 035	10	..	1,045
Mensinkan	Do. do.	12	..	4	8
Todar	Sandal sowing in pits ..	70	..	..	70
Hosabettu	Do. do.	78	..	..	78
Kodiamale	Sowing in pits ..	32	10	..	42
Sabladi	Sowing by cutting lines and staking.	..	100	.	100
Total ..	....	2,681	120	4	2,797

during the forest year 1924-25—*cont.*

Expenditure during year 1st April 1924 to 31st March 1925.		Total expenditure from commencement including expenditure on all failed areas.			Total area written off from start.	Expenditure in failed areas during the year.	Expenditure from commencement including failed areas.	Revenue during the year.	Total revenue from date of creation.
Creation.	Upkeep.	Creation.	Upkeep.	Total expenditure.					
(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs	Rs.
..	50	123	618	741	..	..	741	..	..
..	84	670	522	1,192	..	..	1,192	..	..
15	27	15	27	42	..	..	42	..	..
..	..	18,985	..	18,985	..	..	18,985	46	4,124
..	155	33,241	4,028	37,269	..	..	37,269	..	782
..	71	3,090	116	3,206	..	..	..	..	..
..	40	1,124	118	1,242	..	..	1,242	..	2,315
..	..	1,405	..	1,405	..	..	1,405	..	2,125
..	100	3,770	696	4,466	..	..	4,466	..	..
..	..	49	..	49	..	..	49	..	..
..	..	6,130	1,830	7,960	..	..	7,960	3,597	40,293
..	..	269	1,357	1,626	..	..	1,626	..	940
497	694	4,236	1,193	5,429	..	..	5,429	70	78
376	457	1,549	711	2,260	..	..	2,260	..	..
.	..	5	..	5	..	..	5	..	94
..	..	47	252	299	..	..	299	..	178
..	..	26	37	63	..	..	63	..	..
888	,678	74,734	11,505	86,239	..	..	83,033	3,713	50,929
..	78	517	677	1,194	19	108	1,086	..	..
..	547	3,122	3,661	6,783	..	..	6,783	..	..
1,374 (a)	195	2,906	489	3,395	24	39	3,356	..	..
..	..	13	..	13	38	10	3	..	..
..	..	324	..	324	204	231	93	..	..
..	..	358	..	358	165	235	123	..	..
14	..	78	14	92	..	..	92	..	..
81	..	392	..	392	..	..	392	..	..
1,469	820	7,710	4,841	12,551	450	623	11,928	..	..

(a) This expenditure relates to the sowing in the 535 acres shown in the last year's return, as also 10 acres shown in this return.

Plantations not under working-plans

Division and forest.	Method of formation and year of commencement.	Area in acres.			
		At commencement of year, 1st April 1924.	Added during year, 1st April 1924 to 31st March 1925.	Excluded during year, 1st April 1924 to 31st March 1925.	On 31st March 1925.
(1)	(2)	(3)	(4)	(5)	(6)
SIXTH CIRCLE—*cont.*					
Mangalore, South—					
Parappa, Compartment V.	Planting of teak, 1865 ..	52	..	..	52
Parappa, Compartment VI (Portion).	After clear felling and burning, sowing of deciduous species, 1924 .	..	16	..	16
Parappa Compartments 1 to 10.	Sowing and planting evergreen species, 1920-21 ..	1,808	72	..	1,880
Jalsur East, Coupes 1 and 2	Artificial regeneration, sowing and planting of evergreen species under existing growth, 1920-21.	252	..	..	252
....	Natural regeneration of evergreen species, 1916-17.	147	..	..	147
Porkala and Padnur ..	Sowing and planting of evergreen species. 1920-21.	1,353	110	28	1,435
Nerankimale Reserve ..	Clear felling, burning and sowing seeds of deciduous species in pits, 1923-24	32	20	..	52
Nalkur	Natural regeneration of evergreen forests, 1922.	2,241	..	..	2,241
Total ..	....	5,885	218	28	6,075
Wynaad—					
....	Regular plantations ..	(*d*) 720	175	..	895
....	Taungya	669	..	..	669
....	Cultural operations (*e*) ..	227	..	..	227
Total ..	....	1,616	175	..	1,791
Nilambur	Artificial regeneration, 1924-25.	..	50	..	50
Total ..	....	..	50	..	50
The Nilgiris—					
....	Regular plantations, 1856.	1,883	..	216	1,667
....	Taungya plantations, 1907-08.	32	..	13	19
....	Cultural operations, 1920-21.	74	189	..	263
Mudumalai	Clear felling and planting of teak stumps, 1923-24.	100	..	..	100
Moyar	Do. do.	..	..	..	..
Total ..	....	2,089	189	229	2,049

during the year 1924-25—*cont.*

Expenditure total during year.		Total Expenditure from commencement.			Total area written off from start.	Expenditure in failed areas.	Expenditure from commencement excluding failed areas.	Revenue during the year.	Total revenue from date of creation.
Creation. (7)	Upkeep. (8)	Creation. (9)	Upkeep. (10)	Total. (11)	(12)	(13)	(14)	(15)	(16)
RS.	RS.	RS.	RS.	RS.	ACS.	RS.	RS.	RS.	RS.
..	25	10,357	234	10,591	..	..	10,591	..	2,508
99	15	99	15	114	..	..	114	..	..
469	(*b*) 430	5,290	2,781	8,071	275	1,021	7,050	..	..
..	129	1,541	1,357	2,898	..	..	2,898	..	..
..	128	289	4,053	4,342	..	..	4,342	..	..
2,784	(*c*) 856	6,520	2,783	9,303	184	1,020	8,283	..	..
105	118	204	118	322	..	..	322	..	..
..	906	..	6,129	6,129	..	..	6,129	..	..
3,457	2,607	24,300	17,470	41,770	459	2,041	39,729	..	2,508
3,815	1,636	25,346	27,252	52,598	..	..	52,598	450	20,043
104	272	129	11,356	11,485	..	.	11,485		
..	..	5,651	8,716	14,367	4,399	12,273	2,094	..	..
3,919	1,908	31,126	47,324	78,450	4,399	12,273	66,177	450	20,043
274	..	274	..	274	..	..	274	..	..
274	..	274	.	274	..	..	274	..	..
..	4,665	14,501	3,24,963	3,39,464	216	1,848	3,37,616	31,803	9,68,531
..	120	504	5,139	5,643	13	226	5,417	..	..
450	1,745	2,150	2,623	4,773	..	..	4,773	..	..
250	..	1,380	..	1,380	..	..	1,380	..	..
..	..	101	..	101	..	..	101	..	..
700	6,530	18,636	3,32,725	3,51,361	229	2,074	3,49,287	31,803	9,68,531

(*b*) Includes Rs. 49 spent on a nursery.
(*c*) Includes Rs. 35 spent on a nursery.
(*d*) Revised figure.
(*e*) Not shown in the previous return.

Plantations not under working-plans

Division and forest.	Method of formation and year of commencement.	Area in acres.			
		At commencement of year, 1st April 1924.	Added during year, 1st April 1924 to 31st March 1925.	Excluded during year, 1st April 1924 to 31st March 1925.	On 31st March 1925
(1)	(2)	(3)	(4)	(5)	(6)
SIXTH CIRCLE—*cont.*					
Palghat—					
Thamburattipatti reserve.	Taungya plantations, 1919-20.	34	..	..	34
Puliyampatti tope reserve.	Do. do.	20	..	..	20
Thamburattipatti reserve.	Cultural operations, 1918-19.	17	..	..	17
Vellapathi	Cultural operations, 1919-20.	39	..	..	39
Muthikulam bungalow compound.	Cultural operations, 1921-22.	4	..	..	4
Attapadi	Do. do.	2	..	..	2
Palghat Range Office compound.	Cultural operations, 1919-20.	1	..	..	1
Dhoni reserve	Do. do.	125	..	..	125
Chenat Nair reserve ..	Cultural operations, 1920-21.	493	20	..	513
Elival teak plantation..	Tending coppice shoots, 1919-20.	(*e*) 10	..	..	10
Chinnar Compartment III, coupes 4, 5 and 6.	Tending teak and rosewood seedlings, 1924-25.	..	..	..	..
Walayar teak nursery .	Do. do.	..	..	..	..
Total ..	....	745	20	..	765
Grand Total for the circle.	....	13,016	772	261	13,527
Grand Total, Presidency.	....	35,054	1,500	5,455	31,099

during the year 1924-25—*cont.*

Expenditure during the year.		Total expenditure from commencement.			Total area written off from start.	Expenditure in failed areas.	Expenditure from commencement excluding failed areas.	Revenue during the year.	Total revenue from date of creation.
Creation.	Upkeep.	Creation.	Upkeep.	Total.					
(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
RS.	RS.	RS.	RS.	RS.	ACS.	RS.	RS.	RS.	RS.
..	42	..	175	175	..	..	175	..	..
..	51	..	300	300	..	..	300	..	..
..	..	112	..	112	..	..	112	..	..
..	..	573	59	632	..	..	632	..	..
..	..	110	..	110	..	..	110	..	..
..	..	13	..	13	..	..	13	..	..
..	6	50	48	98	..	..	98	..	..
..	58	2,794	1,514	4 308	..	..	4,308	..	..
407	747	9,511	898	10,409	..	..	10,409	..	..
..	45	..	80	80	..	..	80	..	..
..	(*f*) 30	..	30	30	..	..	30	..	..
28	..	28	..	28	..	..	28	..	..
435	979	13,191	3,104	16,295	..	..	16,295	..	..
10,264	12 844	95,237	4,05,464	5,00,701	5,537	17,011	4,83,690	3,638	9,91,082
23,087	18,019	7,59,214	6,22,040	13,81,876	14,523	3,01,285	7,71,488	40,796	14,88,532

(*e*) Not shown in the last return.
(*f*) Represents expenditure on tending over 333 acres.

ANNUAL FORM No. 76.

Forest Department, Madras Presidency.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1924–25 and agency of exploitation.

Division.	Timber in the rough, logs.					Timber in the rough, poles.					Sawn or square timber.				
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
FIRST CIRCLE.															
I. Reserved Forests.															
Ganjam	184	38	22	9	253	88	14	..	..	102	..	..	..	..	..
Vizagapatam	1	1	..	..	2	..	7	1	..	8	..	..	..	..	..
Gōdāvari, Upper ..	43	3	..	..	46	..	..	..	..	..	..	..	..	..	..
Do. Lower ..	1	105	6	..	112	..	..	..	..	..	..	6	..	..	6
Guntur	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nellore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	229	147	28	9	413	88	21	1	..	110	..	6	..	..	6
II. Leased Forests—Nil.															
III. Reserved Lands—Nil.															
IV. Unreserved Lands—															
Ganjam	9	102	1	..	112	2	..	9	..	11	..	..	..	..	..
Vizagapatam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gōdāvari, Upper ..	16	..	..	..	16	2	2	1	..	5	..	..	..	..	..
Do. Lower ..	1	36	15	..	52	..	..	..	..	..	..	..	..	..	..
Guntur	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nellore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	26	138	16	..	180	4	2	10	..	16	..	..	..	..	..
Grand Total ..	255	285	44	9	593	92	23	11	..	126	..	6	..	..	6

Note for the First Circle.

The figures are actuals except in the following cases :—

(1) Ganjam.—Unreserved lands—Column (3)—This includes 18,000 cubic feet arrived at by taking 20 cubic feet for every rupee collected.

Column (28)—This includes 22,000 cubic feet arrived at by taking 20 cubic feet for every half rupee collected.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1924-25 and agency of exploitation—cont.

Division.	Miscellaneous.					Total timber.					Fuel.					Total outturn.
	Government. (17)	Purchasers. (18)	Free-grantees. (19)	Right-holders. (20)	Total. (21)	Government. (22)	Purchasers. (23)	Free-grantees. (24)	Right-holders. (25)	Total. (26)	Government (27)	Purchasers. (28)	Free-grantees. (29)	Right-holders. (30)	Total. (31)	(32)
FIRST CIRCLE—*cont.*																
I. Reserved Forests—cont.																
Ganjam	..	..	..	..	..	272	52	22	9	355	154	510	44	..	708	1,063
Vizagapatam	..	..	..	..	..	1	8	1	..	10	1	170	..	..	171	181
Gōdāvari, Upper .	7	2	..	..	9	50	5	..	..	55	1	1	..	..	2	57
Do. Lower ..	..	..	..	..	..	1	111	6	..	118	2	719	..	..	721	839
Guntur	4	47	..	..	51	4	47	..	..	51	..	457	..	..	457	508
Nellore	1	2	..	..	3	1	2	..	..	3	6	2,079	..	..	2,085	2,088
Total ..	12	51	..	..	63	329	225	29	9	592	164	3,936	44	..	4,144	4,736
II. Leased Forests—Nil.																
III. Reserved Lands—Nil.																
IV. Unreserved Lands—																
Ganjam..	..	..	..	..	..	11	102	10	..	123	..	119	..	..	119	242
Vizagapatam	..	25	..	..	25	..	25	..	..	25	..	60	..	..	60	85
Gōdāvari, Upper ..	3	10	10	..	23	21	12	11	..	44	4	39	..	..	43	87
Do. Lower ..	..	..	..	..	..	1	36	15	..	52	..	4	..	..	4	56
Guntur	..	473	46	..	519	..	473	46	..	519	..	214	..	..	214	733
Nellore	..	23	12	..	35	..	23	12	..	35	..	32	..	..	32	67
Total ..	3	531	68	..	602	33	671	94	..	798	4	468	..	..	472	1,270
Grand Total ..	15	582	68	..	665	362	896	123	9	1,390	168	4,404	44	..	4,616	6,006

(2) *Gōdāvari, Lower*—Unreserved lands—Column (3)—Includes 27 units of timber obtained by conversion of lease amounts under driftwood operations at 1 anna 6 pies per cubic foot.

(3) *Guntūr*—Reserved forest—Columns (18) and (28)—Figures have been calculated at 1 cubic foot per anna.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1924–25 and agency of exploitation—*cont.*

Division.	Timber in the rough, logs.					Timber in the rough, poles.					Sawn or square timber.				
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
SECOND CIRCLE.															
I. Reserved forests.															
Bellary	..	..	..	..	..	* 1	..	..	..	1	..	..	..	..	..
Anantapur	..	8	6	..	14	..	..	..	..	..	..	..	..	..	..
Kurnool, East ..	4	..	..	..	4	2	..	..	..	2	7	..	..	..	7
Do. South ..	* 35	† 12	..	..	47	* 5	† 32	† 7	..	44	..	1	..	..	1
Do. West ..	28	..	..	..	− 28	20	..	4	..	24	4	..	..	..	4
Cuddapah, North ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. West ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chittoor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Total ..	67	20	6	..	93	28	32	11	..	71	11	1	..	..	12
II. Leased Forests—Nil.															
III. Reserved Lands—Nil.															

Reserved Forests— * Actuals. † Estimates.

NOTE.—*Bellary*—Estimates at 4 annas a cubic foot for I class timber, 2 annas per cubic foot for II class timber, and 6 annas per 20 cubic feet of dead wood.

Anantapur.—Estimates at Rs. 2-8 per cart-load of 20 cubic feet ; fuel Re. 1-4-0 a cart-load of 20 cubic feet.

Kurnool, East and West —Estimates at 1 palmyra tree of 10 cubic feet, timber and fuel, 1 cart-load = 20 cubic feet.

„ *South*.—Estimate—timber and fuel, of 1 cart-load 20 cubic feet.

Cuddapah West, and Chittoor—One anna a cubic foot of timber and 3 pies a cubic foot of fuel.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1924–25 and agency of exploitation—cont.

Division.	Miscellaneous.					Total timber.					Fuel.					Total outturn.
	Government. (17)	Purchasers. (18)	Free-grantees. (19)	Right-holders. (20)	Total. (21)	Government. (22)	Purchasers. (23)	Free-grantees. (24)	Right-holders. (25)	Total. (26)	Government. (27)	Purchasers. (28)	Free-grantees. (29)	Right-holders. (30)	Total. (31)	(32)
SECOND CIRCLE.																
I. Reserved Forests.																
Bellary	..	..	..	..	..	1	..	..	..	1	* 5	* 102	..	..	107	108
Anantapur	..	..	..	..	..	..	8	6	..	14	1	15	..	..	16	30
Kurnool, East ..	..	..	..	..	..	13	..	..	..	13	13	1	..	..	14	27
Do. South .	..	..	..	..	..	* 40	† 45	† 7	..	92	* 10	† 373	..	..	383	475
Do. West ..	..	5	..	..	5	52	5	4	..	61	580	43	..	1	624	685
Cuddapah, North .	1	22	6	..	29	1	22	6	..	29	29	707	..	..	736	765
Do. South ..	3	43	2	..	48	3	43	2	..	48	45	871	..	..	916	964
Do. West ..	2	10	4	..	16	2	10	4	..	16	20	329	..	..	349	365
Chittoor	..	14	1	..	15	..	14	1	..	15	4	410	..	..	414	429
Total ..	6	94	13	..	113	112	147	30	..	289	707	2,851	..	1	3,559	3,848
II. Leased Forests—Nil.																
III. Reserved Lands—Nil																

Reserved Forests— * Actuals. † Estimates.

NOTE.—*Bellary.*—Estimates at 4 annas a cubic foot for first class timber, 2 annas per cubic foot for second class timber and 6 annas per 20 cubic feet of dead wood.

Anantapur.—Estimates for timber at Rs. 2-8-0 per cart-load of 20 cubic feet and fuel Rs. 1-4-0 a cart-load of 20 cubic feet.

Kurnool, East and West.—Estimates for one palmyra tree of 10 cubic feet, timber and fuel 1 cart-load of 20 cubic feet.

,, *South.*—Estimates for timber and fuel of 1 cart-load of 20 cubic feet.

Cuddapah, West, and Chittoor.—Anna 1 a cubic foot of timber and 3 pies a cubic foot of fuel.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1924-25 and agency of exploitation—*cont.*

Division	Timber in the rough, logs.					Timber in the rough, poles.					Sawn or square timber.				
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
SECOND CIRCLE—*cont.*															
IV. Unreserved Lands.															
Bellary	..	..	..	..	..	..	* 22	* 4	..	26	..	..	..	..	..
Anantapur	..	48	..	..	48	..	..	..	..	..	..	..	..	..	..
Kurnool, East ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South ..	..	7	..	..	7	..	..	..	..	..	..	..	..	..	..
Do. West ..	..	273	..	..	273	..	..	..	..	..	..	..	..	..	..
Cuddapah, North ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. West ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chittoor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	..	328	..	..	328	..	22	4	..	26	..	..	..	..	..
Grand Total ..	67	348	6	..	421	28	54	15	..	97	11	1	..	..	12

* Estimates.

NOTE.—*Bellary*—Estimates at 4 annas a cubic foot for first class timber, 2 annas a cubic foot for second class timber and 6 annas per 20 cubic feet of dead wood.

Anantapur.—Estimates for timber at Rs. 2-8-0 per cart-load of 20 cubic feet and fuel Rs. 1-4-0 a cart-load of 20 cubic feet.

Kurnool, East and West.—Estimates for 1 palmyra tree of 10 cubic foot, timber and fuel 1 cart-load of 20 cubic feet.

,, *South.*—Estimates for timber and fuel of 1 cart-load of 20 cubic feet.

Cuddapah, West, and Chittoor —Anna 1 a cubic foot of timber and 3 pies a cubic foot of fuel.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1924–25 and agency of exploitation—cont.

Division.	Miscellaneous.					Total timber.					Fuel.					Total outturn.
	Government. (17)	Purchasers. (18)	Free-grantees. (19)	Right-holders (20)	Total. (21)	Government. (22)	Purchasers. (23)	Free-grantees. (24)	Right-holders. (25)	Total. (26)	Government. (27)	Purchasers. (28)	Free-grantees. (29)	Right-holders. (30)	Total. (31)	(32)
SECOND CIRCLE—*cont.*																
IV. Unreserved Lands.																
Bellary	..	..	..	..	..	..	22	4	..	26	..	* 98	..	..	98	124
Anantapur	..	..	..	..	..	..	48	..	..	48	..	63	..	..	63	111
Kurnool, East	..	26	5	..	31	..	26	5	..	31	..	5	..	..	5	36
Do. South ..	..	75	..	..	75	..	82	..	..	82	..	55	..	..	55	137
Do. West ..	..	..	..	..	..	..	273	..	..	273	..	64	..	..	64	337
Cuddapah, North ..	..	73	..	..	73	..	73	..	..	73	..	73	..	..	73	146
Do. South ..	..	1	..	..	1	..	1	..	..	1	..	4	..	..	4	5
Do. West ..	..	65	..	..	65	..	65	..	..	65	..	225	..	..	225	290
Chittoor	..	142	20	..	162	..	142	20	..	162	..	248	..	..	248	410
Total ..	..	382	25	..	407	..	732	29	..	761	..	835	..	..	835	1,596
Grand Total ..	6	476	38	..	520	112	879	59	..	1,050	707	3,686	..	1	4,394	5,444

* Estimates.

NOTE.—*Bellary*—Estimates at 4 annas a cubic foot for first class timber, 2 annas a cubic foot for second class timber and 6 annas per 20 cubic feet of dead wood.

Anantapur.—Estimates for timber at Rs. 2-8-0 per cart-load of 20 cubic feet and fuel Re. 1-4-0 a cart-load of 20 cubic feet.

Kurnool, East and West—Estimates for ¼ palmyra tree of 10 cubic feet, timber and fuel 1 cart-load of 20 cubic feet.

,, *South*—Estimates for timber and fuel of 1 cart-load of 20 cubic feet.

Cuddapah, West, and Chittoor.—Anna 1 a cubic foot of timber and 3 pies a cubic foot of fuel.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1924-25 and agency of exploitation—*cont.*

Division.	Timber in the rough, logs.					Timber in the rough, poles.					Sawn or square timber.				
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
FOURTH CIRCLE.															
I. Reserved Forests.															
Chingleput	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..
Vellore, North ..	..	4	1	..	5	..	..	..	..	..	..	..	..	..	..
Do. South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. West	..	5	..	..	5	..	..	..	..	..	..	..	..	..	..
Salem, East	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. North	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Do. Central ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..
Total ..	..	9	1	..	10	1	..	1	..	2	1	..	..	..	1
II. Leased Forests—Nil.															
III. Reserved Lands—Nil.															
IV. Unreserved Lands.															
Chingleput	..	118	..	..	118	..	..	2	..	2	..	..	..	..	..
Vellore, North ..	..	157	8	..	165	..	..	..	..	..	..	..	..	..	..
Do. South	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. West	..	21	1	..	22	..	..	..	..	..	..	..	..	..	..
Salem, East	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. North	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. Central ..	..	..	..	..	..	..	1	36	..	37	..	..	..	..	..
Do. South	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	..	296	9	..	305	..	1	38	..	39	..	..	..	..	..
Grand Total ..	..	305	10	..	315	1	1	39	..	41	1	..	..	..	1

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1924-25 and agency of exploitation—cont.

Division.	Miscellaneous.					Total timber.					Fuel.					Total outturn.
	Government. (17)	Purchasers. (18)	Free-grantees. (19)	Right-holders. (20)	Total. (21)	Government. (22)	Purchasers. (23)	Free grantees. (24)	Right-holders. (25)	Total. (26)	Government. (27)	Purchasers. (28)	Free grantees. (29)	Right-holders. (30)	Total. (31)	(32)
FOURTH CIRCLE—*cont.*																
I. Reserved Forests.																
Chingleput	..	..	..	..	..	..	..	1	..	1	..	170	..	..	170	171
Vellore, North	..	..	..	..	..	..	4	1	..	5	2	204	..	..	206	211
Do. South	4	2	..	..	6	4	2	..	..	6	2	197	..	..	199	205
Do. West	3	..	..	..	3	3	5	..	..	8	8	52	..	..	60	68
Salem, East	..	..	..	..	..	..	..	..	..	..	..	121	..	..	121	121
Do. North ..	11	..	..	..	11	12	..	..	..	12	1	7	..	..	8	20
Do. Central ..	1	..	..	..	1	1	..	..	..	1	..	142	..	..	142	143
Do. South	..	3	..	..	3	1	3	..	..	4	3	380	..	..	383	387
Total ..	19	5	..	..	24	21	14	2	..	37	16	1,273	..	..	1,289	1,326
II. Leased Forests—Nil.																
III. Reserved Lands—Nil.																
IV. Unreserved Lands.																
Chingleput	..	..	..	..	..	..	118	2	..	120	..	206	..	..	206	326
Vellore, North	..	..	..	..		..	157	8	..	165	..	89	..	..	89	254
Do. South	..	65	20	..	85	..	65	20	..	85	..	61	..	..	61	146
Do. West	..	..	..	..	..	..	21	1	..	22	..	11	..	..	11	33
Salem, East	..	84	3	..	87	..	84	3	..	87	..	36	..	..	36	123
Do. North	..	17	..	..	17	..	17	..	..	17	..	6	..	..	6	23
Do. Central	..	66	..	..	66	..	67	36	..	103	..	19	..	..	19	122
Do. South	..	247	7	..	254	..	247	7	..	254	..	298	..	..	298	552
Total ..	..	479	30	..	509	..	776	77	..	853	..	726	..	..	726	1,579
Grand Total ..	19	484	30	..	533	21	790	79	..	890	16	1,999	..	..	2,015	2,905

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1924-25 and agency of exploitation—*cont.*

Division.	Timber in the rough, logs.					Timber in the rough, poles.					Sawn or square timber.				
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government	Purchasers.	Free grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Fifth Circle.															
I. Reserved Forests.															
Kollegal	3	1	..	..	4	..	..	..	..	..	..	..	..	..	3
Coimbatore, North ..	..	11	..	..	11	3	..	..	..	3	8	..	..	..	8
Do. South ..	..	..	..	..	..	..	..	..	..	..	15	..	..	..	15
Madura	8	..	..	..	8	..	..	..	..	..	..	..	..	..	..
Tinnevelly	1	3	..	..	4	..	2	..	..	2	1	1	..	..	2
Total ..	12	15	..	..	27	3	2	..	..	5	24	4	..	..	28
II. Leased Forests.															
Coimbatore, South ..	135	..	..	..	135	5	..	..	..	5	..	..	..	..	..
III. Reserved Lands—Nil.															
IV. Unreserved Lands.															
Kollegal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coimbatore, North ..	..	36	6	..	42	..	..	..	..	..	..	..	..	..	..
Do. South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madura	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tinnevelly	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	..	36	6	..	42	..	..	..	..	..	..	..	..	..	..
Grand Total ..	147	51	6	..	204	8	2	..	..	10	24	4	..	..	28

Note for the Fifth Circle.

The figures are actuals except in the following cases:—

Kollegal and Coimbatore, North.—Sandalwood—Factor of conversion—2 qrs. = 1 cubic foot.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1924-25 and agency of exploitation—cont.

Division.	Miscellaneous.					Total timber.					Fuel.					Total outturn.
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
FIFTH CIRCLE—*cont.*																
I. Reserved Forests—cont.																
Kollegal	..	6	8	..	14	3	10	8	..	21	..	188	..	..	188	209
Coimbatore, North ..	..	2	..	..	2	11	13	..	..	24	..	998	..	..	998	1,022
Do. South ..	3	2	..	..	5	18	2	..	..	20	..	118	..	..	118	138
Madura	..	6	..	..	6	8	6	..	..	14	8	674	..	..	682	696
Tinnevelly	..	31	..	..	31	2	37	..	..	39	..	436	..	..	436	475
Total ..	3	47	8	..	58	42	68	8	..	118	8	2,414	..	..	2,422	2,540
II. Leased Forests.																
Coimbatore, South ..	2	..	..	..	2	142	..	..	..	142	..	..	..	..	..	142
III. Reserved Lands—Nil.																
Unreserved Lands.																
Kollegal	..	6	..	..	6	..	6	..	..	6	..	17	..	..	17	23
Coimbatore, North ..	..	..	..	..	..	..	36	6	..	42	..	95	..	..	95	137
Do. South ..	..	..	3	..	3	..	..	3	..	3	..	..	..	..	..	3
Madura	.	121	..	..	121	..	121	..	..	121	..	67	2	..	69	190
Tinnevelly	..	12	..	..	12	..	12	..	..	12	..	108	..	..	108	120
Total ..	..	139	3	..	142	..	175	9	..	184	..	287	2	..	289	473
Grand Total ..	5	186	11	..	202	184	243	17	..	444	8	2,701	2	..	2,711	3,155

Note for the Fifth Circle—cont.

The figures are actuals except in the following cases—*cont.*

Kollegal and Coimbatore, North.—Agricultural implements—Factor of conversion—Each implement = 1 cubic foot.

Unreserved Lands.—Estimate based on money value collected.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1924–25 and agency of exploitation—*cont.*

Division	Timber in the rough, logs.					Timber in the rough, poles.					Sawn or square timber.				
	(Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	(Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	(Government.	Purchasers.	Free-grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
SIXTH CIRCLE															
I. Reserved forests.															
Mangalore, North ..	49	..	..	..	49	..	..	..	..	..	2	..	..	..	2
Do. South ..	40	3	..	.	43	..	..	..	..	..	4	..	..	..	4
Wynaad	1	..	..	..	1	3	..	..	..	3	198	1	..	..	199
Nilambur	137	1	..	..	138	56	..	..	..	56	..	..	..	..	..
The Nilgiris	9	25	..	..	34	..	..	..	..	..	..	.	..	..	..
Palghat	7	28	1	..	36	..	..	..	..	..	..	..	..	..	..
Total ..	243	57	1	..	301	59	..	..	..	59	204	1	..	..	205
II. Leased Forests.															
Nilambur	156	..	..	..	156	9	..	..	..	9	1	..	..	..	1
III. Reserved Lands.															
Nil.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Unreserved Lands.															
Mangalore, North ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Do. South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wynaad	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nilambur	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
The Nilgiris	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..
Palghat	..	22	..	..	22	..	..	..	..	..	..	..	..	..	..
Total ..	..	22	..	..	22	..	..	..	..	..	..	..	..	..	..
Grand Total ..	399	79	1	..	479	68	..	..	..	68	205	1	.	.	148
Parlakimedi maliahs.	1	10	2	..	13	..	22	..	..	22	..	..	..	..	..
Balliguda agency ..	..	..	..	..	..	2	..	..	..	2	..	..	..	..	..
Exploitation division.	114	..	.	..	114	..	..	..	..	..	1	..	..	..	1
Grand Total, Presidency.	983	1,078	69	9	2,139	199	102	65	..	366	242	12	..	..	254

Note for the Sixth Circle —
Purchasers—Actuals and contractors accounts.
Reserved Forests and Leased Forests—
Unreserved Lands.—Estimates based on money value.
Government Agency.—Actuals.

Outturn (in thousands of cubic feet, solid) of timber and fuel during the year 1924–25 and agency of exploitation—*cont.*

Division.	Miscellaneous.					Total timber.					Fuel.					Total outturn.
	Government. (17)	Purchasers. (18)	Free grantees. (19)	Right-holders. (20)	Total (21)	Government. (22)	Purchasers. (23)	Free grantees. (24)	Right-holders. (25)	Total. (26)	Government. (27)	Purchasers. (28)	Free grantees. (29)	Right-holders. (30)	Total. (31)	(32)
SIXTH CIRCLE—*cont.*																
I. Reserved Forests—cont.																
Mangalore, North ..	..	21	..	..	21	51	21	..	..	72	30	1,195	..	..	1,225	1,297
Do. South ..	..	5	..	..	5	44	8	..	..	52	75	129	..	..	204	256
Wynaad	3	..	..	..	3	205	1	..	..	206	..	..	..	..	..	206
Nilambur . ..	..	..	..	..	..	192	1	..	..	193	1	..	..	..	1	195
The Nilgiris ..	..	..	..	..	..	9	25	..	..	34	232	95	1	..	328	362
Palghat	..	..	..	..	..	7	28	1	..	36	4	682	..	..	686	722
Total ..	3	26	..	..	29	509	84	1	..	594	342	2,101	1	..	2,444	3,038
II. Leased Forests—cont.																
Nilambur	..	1	..	..	1	166	1	..	..	167	1	..	..	..	1	168
III. Reserved Lands—cont.																
Nil.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Unreserved Lands—cont.																
Mangalore, North ..	..	123	1	14	138	..	123	1	14	138	..	803	..	..	806	944
Do. South ..	..	55	..	5	60	..	55	..	5	60	..	109	..	..	109	169
Wynaad	..	2	..	..	2	..	2	..	..	2	..	4	..	..	4	6
Nilambur	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
The Nilgiris ..	..	35	..	..	35	..	35	..	..	35	..	..	..	..	..	35
Palghat	..	..	9	..	9	..	22	9	..	31		20	..	..	20	51
Total ..	..	215	10	19	244	..	237	10	19	266	..	939	..	..	939	1,205
Grand total ..	3	242	10	19	274	675	322	11	19	027	343	3,040	1	..	3,384	4,411
Parlakimedi maliahs.	..	..	1	..	1	1	32	3	..	36	41	135	..	..	176	212
Balliguda agency ..	..	..	.	..	..	2	..	..	..	2	17	..	..	..	17	19
Exploitation division.	..	..	..	..	..	115	..	..	..	115	115	..	..	..	115	230
Grand Total Presidency.	48	1,970	158	19	2,195	1,472	3,162	292	28	4,954	1,415	15,965	47	1	17,428	22,382

Note for the Sixth Circle—
Purchasers.—Actuals and contractors accounts.
Reserved Forests and Leased Forests.—
Unreserved Lands.—Estimates based on money value.
Government Agency.—Actuals.

ANNUAL FORM No. 77.

Forest Department, Madras Presidency.

Outturn of minor forest produce during the year 1924–25.

Circle.	Description of produce.	Produce removed or utilized					
		By Government agency.		By purchasers.	By free grantees.	By right-holders	Total.
		Quantity.	Value.	Value.	Value.	Value.	Value.
		NO.	RS.	RS.	RS.	RS.	RS.
First Circle.	*Reserved forests.*						
	Bamboos	23,171	277	74,023	705	135	75,140
	Grazing	..	..	206,876	10,933	267	218,076
	Other produce.						
	Grass (hay, thatch, korai, etc.).	9,954	2,165	7,758	16	..	9,939
	Tamarind, soapnuts, galnuts, nux-vomica, shekoi, etc.	11,499	24,266	12,188	..	500	36,954
	Horns, honey, wax, resin, gum, skins, etc.	..	..	530	..	..	530
	Tangedu, etc., barks and fibres.	211	331	14,118	..	..	14,449
	Stone, gravel, earth, etc. ..	9,884	10	875	..	..	885
	Leaves for platters	..	..	59	..	..	59
	Date and palmyra leaves, stalks, etc.	232	6	646	146	..	798
	Manure leaves, thorns, etc. ..	12	..	166	..	..	166
	Miscellaneous, including tree-tapping and tree-owners' fees.	3	..	1,525	48	..	1,573
	Total, minor produce ..	31,795	26,778	37,865	210	500	65,353
	Total, Reserved forests ..	..	27,055	3,18,764	11,848	902	3,58,569
	Reserved lands.						
	Bamboos	100	3	35,509	..	..	35,512
	Grazing	..	..	6,400	..	..	6,400
	Other produce.						
	Grass (hay, thatch, korai, etc.)	..	..	54	..	..	54
	Tamarind, soapnuts, etc. ..	..	..	14,042	..	..	14,042
	Horns, honey, etc.	..	..	132	..	..	132
	Tangedu bark and fibres ..	..	..	6,020	..	..	6,020
	Stones, gravel, earth, etc. ..	..	..	22	..	..	22
	Leaves for platters	..	..	362	..	..	362
	Date and palmyra leaves ..	.	..	136	304	..	440
	Miscellaneous, including tree-tapping and tree-owners' fees, etc.	..	..	8,611	..	..	8,611
	Total, minor produce ..	..	..	29,379	304	..	29,683
	Total, Reserved lands ..	..	3	71,288	304	..	71,595
	Unreserved lands.						
	Bamboos	10,327	119	11,347	174	..	11,640

Outturn of minor forest produce during the year 1924-25—*cont.*

Circle.	Description of produce.	Produce removed or utilized					
		By Government agency.		By purchasers.	By free grantees.	By right-holders.	Total.
		Quantity.	Value.	Value.	Value.	Value.	Value.
	Other produce—cont.	NO.	RS.	RS.	RS.	RS.	RS.
First Circle—*cont.*	Grass (thatch, korai, etc.) ..	2,128	78	283	9	..	370
	Tamarind, soapnuts, galnuts, nux-vomica, shekoi, etc.	816	73	10,661	..	..	10,734
	Horns, honey, wax, gum, resin, skins, etc.	1	1	1,414	..	..	1,415
	Tangedu, etc., barks and fibres.	..	..	467	..	..	467
	Stone, gravel, earth, etc. ..	..	..	315	..	..	315
	Leaves for platters	..	..	12	..	..	12
	Date and palmyra leaves, stalks, etc.	..	..	..	288	..	288
	Miscellaneous, including tree, tapping and tree-owners' *fees*, etc.	..	..	42,902	2	..	42,904
	Total, minor produce ..	2,945	152	56,054	299	..	56,505
	Total, Unreserved lands ..	..	271	67,401	473	..	68,145
	Abstract for the first circle.						
	Bamboos	33,598	399	1,20,879	879	135	1,22,292
	Grazing	..	..	2,13,276	10,933	267	2,24,476
	Other produce in quarters ..	34,743	26,930	1,23,298	813	500	1,51,541
	Grand total, ..	..	27,329	4,57,453	12,625	902	4,98,309
Second Circle.	Bamboos	1,241,775	24,438	50,956	446	1	75,841
	Grazing	..	..	1,91,625	85	3,795	1,95,505
	Fodder grass	..	..	1,945	..	..	1,945
	Panchayat fees	..	..	15 395	..	..	15,395
	Penning fees	..	..	5,542	..	..	5,542
	Total grazing ..	..	..	2,14,507	85	3,795	2,18,387
	Minor forest produce.	QRS. of 28 LB.					
	Grass (hay, thatch and grass) ..	1,602	137	3,404	6	21	3,568
	Tamarind, soapnuts and nux-vomica.	6,448	10,870	26,957	..	..	37,827
	Stone, gravel and earth ..	..	..	6,736	51	..	6,787
	Date, palmyra and platter leaves.	1,028	268	8,019	58	..	8,345
	Manure leaves, bats' dugu and thorns.	..	..	8,136	..	..	8,136
	Tumki leaves	..	..	3,939	..	..	3,939
	Horns, honey, wax, resin, gum and galnuts.	89	303	5,679	..	..	5,982
	Tangedu, rela, yepi, fibre and seeds.	70	49	1,38,412	..	..	1,38,461
	Miscellaneous including tree-tapping fees and amaroi.	..	..	1,03,861	..	..	1,03,861
	Total minor forest produce ..	9,237	11,627	3,05,143	115	21	3,16,906
	Grand Total, grazing and minor forest produce.	..	11,627	5,19,650	200	3,816	5,35,293

Outturn of minor forest produce during the year 1924-25—*cont.*

Circle.	Description of produce.	Produce removed or utilized					
		By Government agency.		By purchasers.	By free grantees	By right-holders.	Total.
		Quantity.	Value.	Value.	Value.	Value.	Value.
		NO.	RS.	RS.	RS.	RS.	RS.
Fourth Circle.	Bamboos	10,909	77	81,804	341	..	82,222
	Grass and grazing	5	2	2,26,315	..	20	2,26,337
		QRS.					
	Grass (thatch, korai, etc.) ..	..	..	4,407	12	..	4,419
	Tamarind, soapnuts galnuts, nux-vomica, etc.	584	428	22,079	..	..	22,507
	Avaram, vembadam, etc., barks.	..	..	24,729	..	..	24,729
	Stone, gravel, earth, etc. ..	.	..	13,682	..	..	13,682
	Manure leaves, etc.	34	2	18,033	..	..	18,035
	Date, palmyra, etc , leaves ..	..	..	2,191	111	..	2,302
	Miscellaneous including tree-owners' fees.	272	83	60,128	115	..	60,326
	Total ..	890	513	1,45,249	238	..	1,46,000
	Grand Total ..	..	592	4,53,368	579	20	4,54,559
	Reserved forests.						
		NO.					
	Bamboos	828	62	32,031	2,462	..	34,555
	Grazing	..	..	1,19,504	185	1,272	1,20,961
	Fodder grass	..	..	2,047	..	..	2,047
	Revenue from Panchayat forests.	..	..	5,785	..	..	5,785
	Total ..	..	..	1,27,336	185	1,272	1,28,793
	Other produce.						
		QRS.					
	Grass (thatch, korai, etc.) ..	141	2	5,296	..	..	5,298
	Dammer, turmeric, pepper, cardamoms, etc.	..	..	12,997	..	..	12,997
	Tamarind, soapnuts, galnuts, nux-vomica, shekoi, etc.	7	3	5,950	..	..	5,953
	Horns, honey, wax, gum, resin, skin, etc.	..	..	8,744	..	..	8,744
	Avaram, vembadam, etc., barks and fibres.	..	..	11,620	..	..	11,620
	Stones, earth, gravel, etc. ..	..	..	3,018	..	..	3,018
	Manure leaves, thorns, etc. ..	..	..	10,188	..	..	10,188
	Date and palmyra leaves ..	..	..	3,789	..	479	4,268
	Elephant tusk	11	2,157	..	..	..	2,157
	Miscellaneous	..	..	15,449	..	..	149
	Total ..	159	2,162	77,051	..	479	79,692
	Unreserved lands.						
	Other produce.						
	Gravel, stones, earth, etc. ..	..	..	5,483	..	..	5,483
	Miscellaneous	..	..	13,056	2	..	13,058
	Total ..	..	..	18,539	2	..	18,541
	Abstract for the Fifth Circle.						
		NO.					
	Bamboos	828	62	32,031	2,462	..	34,555
	Grazing, fodder grass and revenue from panchayats.	..	..	1,27,336	185	1,272	1,28,793
		QRS.					
	Other produce	159	2,162	95,590	2	479	98,233
	Total ..	..	2,224	2,54,957	2,649	1,751	2,61,581
Fifth Circle.							

Outturn of minor forest produce during the year 1924-25—*cont.*

Circle.	Description of produce.	Produce removed or utilized					
		By Government agency.		By purchasers.	By free grantees.	By right-holders.	Total.
		Quantity.	Value.	Value	Value.	Value.	Value.
Sixth Circle.	*Reserved forests.*	NO.	RS.	RS	RS.	RS.	RS.
	Bamboos	41,444	3,423	13,768	19	..	17,210
	Grazing and fodder grass.	..	49	35,530	773	..	36,352
	Other produce.						
	Grass, thatch, etc. ..	..	..	311	8	..	319
		QRS.					
	Horns	15	40	..	..	..	40
	Honey and wax ..	13	87	..	..	..	87
	Wood oil	..	..	500	..	..	500
	Canes	..	..	600	..	..	600
	Catechu (trees) ..	..	..	1,871	..	..	1,871
	Miscellaneous ..	268	346	17,949	1,151	..	19,446
	Total ..	290	473	21,231	1,159	..	22,863
	Reserved lands.						
	Bamboos	..	..	122	..	..	122
	Grazing and fodder grass.	..	..	..	524	..	524
	Leased forests.						
	Bamboos	NO. 103,709	9,506	..	..	..	9,506
		QRS.					
	Ivory	3	750	..	..	..	750
	Miscellaneous ..	163	774	189	..	..	963
	Total ..	166	1,524	189	..	..	1,713
	Unreserved lands.						
	Bamboos	..	..	52	3	..	55
	Stone, gravel, etc. ..	..	..	630	..	..	630
	Catechu	..	..	5,028	..	..	5,028
	Miscellaneous ..	..	..	6,874	..	..	6,874
	Total ..	..	..	12,532	..	..	12,532
	Abstract for the Sixth Circle.						
	Bamboos	NO. 145,153	12,929	13,942	22	..	26,893
	Grazing and fodder grass.	..	49	35,630	1,297	..	36,876
	Other items	QRS. 456	1,997	33,952	1,159	..	37,108
	Total ..	145,609	14,975	83,424	2,478	..	1,00,877
Total, Presidency.	Parlakimedi Maliahs.						
	Bamboos	..	..	2,984	69	..	3,053
	Grazing and fodder grass.	..	..	1,140	..	..	1,140
	Other minor produce..	38	310	15,813	34	..	16,157
	Total ..	38	310	19,937	103	..	20,350
	Bamboos	NO. 1,428,263	37,905	3,02,596	4,219	136	3,44,856
	Grazing and fodder grass.	QRS. 5	51	8,18,104	12,500	5,354	8,36,009
	Other minor produce..	45,523	48,539	7,19,045	2,361	1,000	7,65,945
	Total, Presidency ..	..	..	..	..	..	..
	Grand total, Presidency	..	81,495	18,39,745	19,080	6,490	19,46,810

ANNUAL FORM No. 78.

Forest Department, Madras Presidency.

Account of timber, fuel, bamboos and minor produce cut or collected by Government Agency and brought to depot, sold locally or otherwise disposed of during 1924-25.

Name of district.	Balance at commencement of the year in forest and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forest and sale depots.
TIMBER (IN THOUSANDS OF CUBIC FEET).					
First Circle.					
Ganjam	192	283	475	359 (a) 6 (b) 10	100
Vizagapatam	..	1	1	1	..
Godavari, Upper	55	71	126	(a) 1 (b) 2 107	16
Do. Lower	1	2	3	(a) 1 2	..
Guntur	..	4	4	3	1
Nellore	..	1	1	(a) 1	..
Total ..	248	362	610	493	117
Second Circle.					
Bellary	..	1	1	..	1
Anantapur	..	..	..	..	..
Kurnool, East	1	13	14	(a) 1 (c) 7	6
Do. South	..	40	40	20	20
Do. West	47	52	99	(b) ½ (a) 1 (c) 85½	12
Cuddapah, North	..	1	1	1	..
Do. South	2	3	5	3	2
Do. West	..	2	2	2	..
Chittoor	..	..	..	..	..
Total ..	50	112	162	121	41
Fourth Circle.					
Chingleput	..	..	..	..	..
Vellore, North	..	..	..	..	..
Do. South	1	4	5	4	1
Do. West	..	3	3	3	..
Salem, East	..	..	..	..	..
Do. North	5	12	17	15	2
Do. Central	..	1	1	1	..
Do. South	1	1	2	2	..
Total ..	7	21	28	25	3

(a) Used departmentally. (b) Written off. (c) Sold locally.

Account of timber, fuel, bamboos and minor produce cut or collected by Government Agency and brought to depot, sold locally or otherwise disposed of during 1924--25—*cont.*

Name of district	Balance at commencement of the year in forest and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forest and sale depots.
TIMBER (IN THOUSANDS OF CUBIC FEET)—*cont.*					
Fifth Circle.					
Kollegal	..	3	3	(*d*) 3	..
Coimbatore, North	2	11 (*d*) + 3	16	15	1
Do. South	(*e*) 116	160	276	70	206
Madura	2	8	10	8	2
Tinnevelly	..	2	2	2	..
Total ..	120	187	307	98	209
Sixth Circle.					
Mangalore, North ..	14	51	65	56 (*a*) 1 (*b*) 1	7
Do. South	58	44	102	65 (*a*) 1 (*b*) 3	33
Wynaad	105	205	310	115 (*a*) 8 (*b*) 14	178
Nilambur	554	359	913	222 (*a*) 2 (*b*) 10	679
The Nilgiris	43	9	52	39 (*b*) 1	12
Palghat	12	7	19	5	14
Total ..	786	675	1,461	543	918
Exploitation division ..	68,407	2,16,002	2,84,409	1,85,059	99,350
Grand total, Presidency ..	69,618	2,17,359	2,86,977	1,86,339	1,00,638
FUEL (IN THOUSANDS OF CUBIC FEET).					
First Circle.					
Ganjam	92	154	246	(*a*) 1 (*b*) 4 199	42
Vizagapatam	2	1	3	3	..
Godavari, Upper	2	5	7	6	1
Do. Lower	1	2	3	3	..
Guntur	..	..	..	..	..
Nellore	13	6	19	(*a*) 18	1
Total ..	110	168	278	234	44

Note for the Fifth Circle.—(*d*) Transferred from Kollegal to Coimbatore, North.
(*e*) Revised figure furnished by the District Forest Officer.

Note for the Sixth Circle.—(*a*) Used departmentally.
(*b*) Written off.

Note for the First Circle.—(*a*) Used departmentally.
(*b*) Written off.

Account of timber, fuel, bamboos and minor produce cut or collected by Government Agency and brought to depot, sold locally or otherwise disposed of during 1924-25—*cont.*

Name of district.	Balance at commencement of the year in forest and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forest and sale depots.
FUEL (IN THOUSANDS OF CUBIC FEET)—*cont.*					
Second Circle.					
Bellary	..	5	5	3	2
Anantapur	..	1	1	1	..
Kurnool, East	..	13	13	9	4
Do. South	..	10	10	2	8
Do. West	860	580	1,440	(*b*) 50 (*c*) 979	411
Cuddapah, North	1	29	30	30	..
Do. South	..	45	45	12	33
Do. West	..	20	20	20	..
Chittoor	5	4	9	9	..
Total ..	866	707	1,573	1,115	458
Fourth Circle.					
Chingleput	..	..	..	..	..
Vellore, North	..	2	2	1	1
Do. South	1	2	3	3	..
Do. West	..	8	8	8	..
Salem, East	..	..	..	..	..
Do. North	..	1	1	1	..
Do. Central	..	..	..	..	..
Do. South	..	3	3	3	..
Total ..	1	16	17	16	1
Fifth Circle.					
Madura	..	8	8	8	..
Sixth Circle.					
Mangalore, North ..	39	30	69	69	..
Do. South	66	75	141	141	..
Wynaad	..	..	..	..	..
Nilambur	1	2	3	2	1
The Nilgiris	502	232	734	464 (*a*) 1	269
Palghat	..	4	4	..	4
Total ..	608	343	951	677	274
Exploitation Division ..	..	1,63,570	1,63,570	1,42,401	21,169
Grand Total, Presidency ..	1 ,55	1,64,812	1,66,397	1,44,451	21,946

Note for the Second Circle.—(*b*) Written off.
(*c*) Sold locally.
Note for the Sixth Circle.—(*a*) Used departmentally.

Account of timber, fuel, bamboos and minor produce cut or collected by Government Agency and brought to depot, sold locally or otherwise disposed of during 1924-25—*cont.*

Name of district.	Balance at commencement of the year in forest and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forest and sale depots.
BAMBOOS (IN NUMBER).					
First Circle.					
Ganjam	..	9,840	9,840	(*a*) 9,840	..
Vizagapatam	..	600	600	(*a*) 600	..
Godavari, Upper	..	13,777	13,777	(*a*) 6,900 6,877	..
Do. Lower	..	7,676	7,676	(*a*) 4,150 (*b*) 62 3,464	..
Guntur	..	1,380	1,380	(*a*) 1,380	..
Nellore	..	325	325	(*a*) 325	..
Total ..	..	33,598	33,598	33,598	..
Second Circle.					
Kurnool, East	4,673	249,402	254,075	(*b*) 720 (*a*) 1,617 (*c*) 229,465	22,273
Do. South	..	1,000	1,000	(*b*) 1,000	..
Do. West	4,168	988,146	992,314	990,961	1,353
Cuddapah, North	..	2,150	2,150	2,150	..
Do. South	..	405	405	405	..
Do. West	900	672	1,572	1,572	..
Total ..	9,741	1,241,775	1,251,516	1,227,890	23,626
Fourth Circle.					
Chingleput	..	40	40	40	..
Vellore, North	..	..	..	..	..
Do. South	..	..	..	..	..
Do. West	..	400	400	400	..
Salem, East	..	..	..	..	..
Do. North	950	1,876	2,826	2,726	100
Do. Central	..	625	625	625	..
Do. South	..	7,968	7,968	7,968	..
Total ..	950	10,909	11,859	11,759	100
Fifth Circle.					
Coimbatore, North	161	828	989	989	..

Note for the First Circle.—(*a*) Used departmentally.
(*b*) Written off.

Note for the Second Circle.—(*a*) Used departmentally.
(*b*) Written off.
(*c*) Sold locally.

Account of timber, fuel, bamboos and minor produce cut or collected by Government Agency and brought to depot, sold locally or otherwise disposed of during 1924-25—*cont.*

Name of district.	Balance at commencement of the year in forest and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forest and sale depots.
BAMBOOS (IN NUMBER)—*cont.*					
Sixth Circle.					
Mangalore, North	..	..	..	..	..
Do. South	11,053	120	11,173	11,053 (a) 120	..
Wynaad	211	3,219	3,430	56 (a) 3,274	100
Nilambur	21,315	205,803	227,118	127,630 (a) 3,520 (b) 4,520	91,448
The Nilgiris	..	..	..	..	..
Palghat	..	1,962	1,962	(a) 593	1,369
Total ..	32,579	211,104	243,683	150,766	92,917
Grand Total, Presidency ..	43,431	1,498,214	1,541,645	1,425,002	116,643
MINOR FOREST PRODUCE (IN QUARTERS OF 28 LB.).					
First Circle.					
Ganjam	..	14,628	14,628	(a) 14,628	..
Vizagapatam	23	75	98	(a) 25	73
Godavari, Upper	861	4,551	5,412	(a) 4,467 4	941
Do. Lower	41	151	192	(a) 73 (c) 1	118
Guntur	107	..	107	1 106	..
Nellore	7,405	15,335	22,740	22,325	415
Total ..	8,437	34,740	43,177	41,630	1,547
Second Circle.					
Bellary	..	..	..	..	..
Anantapur	..	14	14	11	3
Kurnool, East	1,329	2,678	4,007	(a) 650 (c) 2,387	970
Do. South	..	..	..	..	..
Do. West	1,300	4,685	5,985	5,581	404
Cuddapah, North	662	1,582	2,244	2,004	240
Do. South ..	318	231	549	537	12
Do. West	1,573	47	1,620	1,594	26
Chittoor	40	..	40	40	..
Total ..	5,222	9,237	14,459	12,804	1,655
Fourth Circle.					
Chingleput	..	..	..	..	..
Vellore, North	225	321	546	288	258
Do. South	122	158	280	142	138
Do. West	44	30	74	46	28
Salem, East	..	..	..	..	..
Do. North	5	242	247	55	192
Do. Central	9	53	62	47	15
Do. South	850	86	936	851	85
Total ..	1,255	890	2,145	1,429	716

(a) Used departmentally. (b) Written off. (c) Sold locally.

Account of timber, fuel, bamboos and minor produce cut or collected by Government Agency and brought to depot, sold locally or otherwise disposed of during 1924–25--*cont.*

Name of district.	Balance at commencement of the year in forest and sale depots.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forest and sale depots.
MINOR FOREST PRODUCE (IN QUARTERS OF 28 LB.)—*cont.*					
Fifth Circle.					
Kollegal	..	7	7	7	..
Coimbatore, North	5	141	146	146	..
Do. South	1	11	12	12	..
Total ..	6	159	165	165	..
Sixth Circle.					
Wynaad	..	2	2	1	1 Tusk
Nilambur	..	5	5	..	5 Tusk
The Nilgiris	66	282	348	86	259
Other Divisions—Nil ..	..	..	..	(*b*) 3	..
Total ..	66	289	355	90	265
Grand Total, Presidency ..	14,966	45,315	60,301	56,118	4,183

(*b*) Written off.

Annual Form No. 79.

Forest Department, Madras Presidency.

Statement showing the value of timber and other produce at sale depots for the year 1924-25.

District.	Description of timber or produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		Number.	Cubic feet.	Value	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.
	First Circle.			Rs.			Rs.	Rs.	Rs.
Nellore ..	Fuel	..	13,043	815	..	530	33	..	782
	Minor forest produce.	QR. 7,404	..	8,724	QR. 414	..	306	..	8,418
Total value.	....	..	..	9,539	..	..	339	..	9,200
	Second Circle.								
Kurnool, South.	Timber ..	..	23	9	..	19,818	24,773	24,764	..
Cuddapah, South.	Timber ..	..	2,479	5,663	..	1,750	1,972	..	3,691
Chittoor ..	Timber ..	..	41	330	..	2	1	..	329
Cuddapah, South.	Sandalwood ..	..	QR. 10¼	151	..	..	..	..	151
Kurnool, South.	Fuel ..	..	180	2	..	7,742	78	76	..
Cuddapah, South.	Fuel ..		100	3	..	33,030	331	328	..
Chittoor ..	Fuel ..	..	5,391	152	..	92	4	..	148
Cuddapah, North.	Nux-vomica ..	QR. 182	..	204	..	..	..	..	204
Cuddapah, South.	Nux-vomica ..	300	..	294	..	..	..	..	294
Cuddapah, West.	Nux-vomica ..	1,534	..	1,460	..	..	..	..	1,460
Total value.	.. .	..	..	8,268	..	..	27,159	18,891	..
	Fourth Circle.								
Vellore, North.	Timber ..	..	31	4	..	2	51	47	..
	Fuel ..	..	495	37	..	960	60	23	..
	Minor forest produce.	QR. 225	..	84	QR. 258	..	177	93	..
Vellore, South.	Timber ..	..	..	..	..	57	1,653	1,653	..
Vellore, West.	Timber ..	..	172	3,724	..	37	1,157	..	2,567
Salem, East.	Timber ..	..	22	652	..	6	329	..	323
Salem, North.	Timber ..	..	5,011	62,731	..	2,021	25,300	..	37,431
	Bamboos ..	NO. 950	..	3	NO. 100	..	1	..	2
	Minor forest produce.	QR. 5	..	33	QR. 192	..	1,136	1,103	..

Statement showing the value of timber and other produce at sale depots for the year 1924-25—*cont.*

District.	Description of timber or produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.
	Fourth Circle—cont.			Rs.			Rs.	Rs.	Rs.
Salem, Central.	Timber ..	..	255	3,016	..	51	413	..	2,603
	Fuel ..	..	320	35	..	..	..	..	..
	Minor forest produce.	QR. 9	..	17	QR. 15	..	27	10	..
Salem, South.	Timber .	..	4	2	..	..	..	..	2
	Fuel ..	..	198	10	..	20	2	..	8
	Minor forest produce.	QR. 849	..	589	QR. 85	..	70	..	519
Total value.	....	..	..	70,937	..	..	30,376	..	40,561
	Fifth Circle.								
Coimbatore, North.	Timber ..	..	1,984	54,359	..	1,006	33,648		20,711
	Bamboos ..	161	..	2	..	..	..	..	2
	Minor produce	QR. 5	..	3	..	..	..	..	3
Coimbatore, South.	Timber ..	..	74,433	89,116	..	1,29,982	1,85,040	95,925	..
	Minor produce	QR. 1	..	274	QR. 1	..	116	..	158
Madura ..	Timber ..	..	1,645	513	..	1,461 and 685 brake poles.	666	153	..
	Fuel	..	320	20	..	400	30	10	..
Tinnevelly	Timber ..	..	461 262 sets	222	..	764	763	541	..
	Sixth Circle.								
Mangalore, North.	Timber ..	..	8,873	6,094	..	4,316	5,139	..	955
Mangalore, South.	Timber ..	..	32,059	46,500	..	4,348	6,400	..	40,100
	Bamboos ..	4,898	..	1,250	..	..	..	..	1,250
Wynaad ..	Timber ..	..	17,750	55,511	..	* 19,630	75,824	20,313	..
Nilambur	Timber ..	..	62,575	1,30,694	..	* 56,449	86,742	..	43,952
	Fuel	..	338	89	..	29	4	..	85
	Bamboos ..	3,779	..	201	429	..	26	..	175
Nilgiris ..	....	..	..	..	..	..	..	..	..
Palghat ..	....	..	..	..	..	..	..	.	..
Total value.	....	..	..	2,40,339	..	..	1,74,135	..	66,204

* Includes 16,044 cubic feet with Messrs. Howard Brothers & Co.

Statement showing the value of timber and other produce at sale depots for the year 1924-25—*cont.*

District.	Description of timber or produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.
				ABSTRACT.					
				RS.			RS.	RS.	RS.
First Circle.	Fuel ..	..	13,043	815	..	530	33	..	782
	Minor produce	QR. 7,404	..	8,724	QR. 414	..	306	..	8,418
Total value.	....	..	..	9,539	..	..	339	..	9,200
Second Circle.	Sandalwood ..	QR. 10¼	..	151	..	..	..	..	151
	Timber ..	..	2,543	6,002	..	21,570	26,746	20,744	..
	Fuel ..	..	5,671	157	..	40,864	413	256	..
	Bamboos ..	..	..	..	..	..	..	..	..
	Minor produce.	QR. 2,016	..	1,958	..	..	..	..	1,958
Total value.	....	..	..	8,268	..	..	27,159	18,891	..
Fourth Circle.	Timber ..	..	5,495	70,129	..	2,174	28,903	..	41,226
	Fuel ..	..	1,013	82	..	980	62	..	20
	Bamboos ..	950	..	3	100	..	1	..	2
	Minor produce	QR. 1,088	..	723	550	..	1,410	687	..
Total value.	....	..	..	70,937	..	..	30,376	..	40,561
Fifth Circle.	Timber ..	..	78,523 sets 262	1,44,209	..	133,213 685 brake-poles.	2,20,117	75,908	..
	Fuel ..	..	320	20	..	400	30	10	..
	Bamboos ..	161	..	2	..	..	..	..	2
	Minor produce	QR. 6	..	277	QR. 1	..	116	..	161
Total value.	....	..	..	1,44,508	..	..	2,20,263	75,755	..
Sixth Circle.	Timber ..	..	121,257	2,38,799	..	84,643	1,74,105	..	64,694
	Fuel	..	338	89	..	29	4	..	85
	Bamboos ..	8,677	..	1,451	429	..	26	..	1,425
Total value.	....	..	..	2,40,339	..	..	1,74,135	..	66,204
Parlakimedi Maliahs.	Timber ..	220	468	529	158	450	609	80	..
	Fuel	329	39,600	1,240	265	40,200	1,005	..	235
	Bamboos ..	..	..	..	..	..	..	..	..
	Minor produce	QR. 29	..	239	QR. 40	..	233	..	6
Total value.	....	..	..	2,008	..	..	1,847	..	161
Total, Presidency.	Sandalwood ..	QR. 10¼	..	151	..	..	..	..	151
	Timber ..	220	208,286	4,59,668	158	242,150	4,50,480	..	9,188
	Fuel	329	59,935	2,403	265	83,003	1,547	..	856
	Bamboos ..	9,788	..	1,456	529	..	27	..	1,429
	Minor produce.	QR. 10,543	..	11,921	1,005	..	2,065	..	9,856
Forest Exploitation Division	Timber ..	..	..	15,573	..	..	43,611	28,038	..
Grand Total, Presidency.	....	..	..	4,91,172	..	..	4,97,730	6,558	..

ANNUAL FORM No. 80.

Forest Department, Madras Presidency.

Summary of revenue and expenditure for 1924-25.

ANNUAL

Forest Department,

Summary of revenue of the different

(1)	Budget heads— I Timber and other produce removed from the forests by Government Agency. Timber. (2)	Firewood and charcoal. (3)	Bamboos. (4)	Sandalwood. (5)	Grass and other minor produce. (6)	II. Timber and other produce by consumers or Timber. (7)	Firewood and charcoal. (8)	Bamboos. (9)	Grazing and fodder grass. (10)
First Circle.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Direction	..	21	..	..	..	..	..	..	..
Ganjam	94,273	1,110	..	..	..	15,861	41,586	7,779	9,707
Vizagapatam ..	1,003	82	..	..	12	5,194	8,257	19,738	4,932
Gōdāvari, Upper ..	40,163	392	..	..	2	4,129	513	29,282	7,943
Gōdāvari, Lower ..	184	221	..	..	..	26 562	61,087	59,094	21,817
Guntūr	8	..	..	..	133	32,509	41,898	5,452	94,397
Nellore	29	457	..	..	26,389	4,102	54,312	81	78,671
Total ..	1,35,660	2,283	..	..	26,536	88,357	2,07,653	1,21,426	2,17,467
Second Circle.									
Direction	..	..	..	..	..	..	..	..	..
Bellary	288	97	..	..	1	4,120	6,887	53	24,850
Anantapur ..	..	..	..	..	19	7,221	2,542	..	9,224
Kurnool, East ..	8,459	180	5,022	..	2,223	1,954	366	..	42,599
Do. South ..	30,072	41	..	..	4	11,994	13,532	28,550	19,587
Do. West ..	29,517	7,362	19,355	..	8,884	18,009	5,063	..	39,497
Cuddapah, North ..	3	239	..	..	339	8,260	12,086	6,147	22,689
Do. South ..	5,914	270	..	..	297	5,566	6,079	2,750	7,867
Do. West. ..	29	205	2	..	1,368	12,171	4,526	3,850	25,727
Chittoor	369	149	..	21	..	16,534	8,684	9,403	22,362
Total ..	74,651	8,543	24,379	21	13,135	85,829	59,765	50,753	2,14,402
Fourth Circle.									
Direction	..	..	..	6,640 (*a*)	..	..	..	..	..
Chingleput ..	8	87	3	..	..	7,385	9,181	12	20,715
North Vellore ..	166	116	..	86	131	20,123	17,735	10,870	25,186
South Vellore ..	84	78	..	1,01,598	45	8,100	10,565	34,561	27,171
West Vellore ..	149	75	..	81,280	..	2,743	3,354	7,272	28,689
East Salem.. ..	..	16	..	11,623	..	10,551	17,248	15,415	40,931
North Salem ..	105	115	..	2,89,119	61	2,025	726	4,469	23,315
Central Salem ..	5	28	..	17,091	71	8,492	21,239	11,171	28,118
South Salem ..	13	91	26	39,600	601	24,291	21,755	5,658	30,373
Tanjore ..	..	..	..	..	..	1,733	4,526	2	159
Total ..	530	556	29	5,47,037 —782(*c*)	909	85,513	1,06,329	89,430	2,25,657

(*a*) Sandalwood revenue relating to other circles (Tinnevelly Rs. 877, Chittoor Rs. 5,336 and South Cuddapah Rs. 427).

(*b*) Refunds made in respect of unreserves by the Revenue Department.

(*c*) Deducted to tally with the Accountant-General's figures.

FORM No. 80.

Madras Presidency.

districts for the year 1924-25.

Receipts.

removed from the forests by purchasers.				III. Confiscated drift and wait-wood.	IV. Revenue from forest not managed by Government—Revenue from shared and private forests.	V. Miscellaneous.		Recoveries of investments on Government commercial undertakings.	Total Receipts.	Deduct 'Refunds'—Voted.	Refunds made in treasuries.	Net total.
Other produce. (11)	Rents for trees tapped. (12)	Other items. (13)	Commutation fees. (14)	(15)	(16)	Fines and forfeitures. (17)	Other sources. (18)	(19)	(20)	(21)	(22)	(23)
RS.	RS.	RS.	RS.	RS.		RS.	RS.	RS.	RS.	RS.	RS.	RS.
60	..	..	..	..	..	..	..	..	81	..	..	81
1,263	781	..	..	491	..	738	15,668	46,615	2,35,872	97	..	2,35,775
9,564	910	..	..	80	..	163	1,932	..	51,817	149	..	51,668
886	7	..	..	762	..	..	3,099	..	87,178	106	..	87,072
31,311	12,729	..	..	3,026	..	2,085	11,619	..	2,29,735	6,741	..	2,22,994
23,933	8,709	..	..	297	..	1,526	57,374	..	2,66,236	892	..	2,65,344
14,619	8,669	..	..	381	..	855	19,516	..	2,08,081	1,055	..	2,07,026
81,636	31,805	..	..	4,987	..	5,367	1,09,208	46,615	10,79,000	9,040	508	10,69,452
..	..	..	..	..	..	..	163	..	163	4	..	159
24,904	35,163	..	..	63	..	377	10,291	..	1,07,094	145	..	1,06,949
32,392	13,916	..	..	218	..	135	7,206	..	1,22,873	447	..	1,22,426
7,581	1,950	..	..	223	..	..	7,153	..	76,810	90	..	76,720
15,225	2,854	..	..	892	..	1,259	12,377	..	1,36,387	356	..	1,36,031
21,219	13,259	..	..	748	..	124	9,258	..	1,72,295	5,507	..	1,66,788
7,537	684	..	..	302	..	355	4,641	..	63,282	49	..	63,233
11,104	2,024	..	..	198	..	259	4,007	..	46,335	10	..	46,325
16,511	2,612	..	..	756	..	597	9,770	..	78,154	314	..	77,840
43,391	4,364	..	..	163	..	246	11,106	..	1,16,791	830	..	1,15,961
2,29,864	75,956	..		3,563	..	3,352	75,971	..	9,20,184	7,752 *2,623	..	9,09,809
..	..	..	..	..	..	..	16	..	6,656	..	..	6,656
6,124	2,749	..	..	418	..	6	4,479	..	51,117	59	..	51,058
16,158	3,562	..	..	200	..	187	14,967	..	1,10,487	175	..	1,10,312
22,118	3,489	..	..	343	..	715	1,533	..	2,10,400	9,718	..	2,00,682
8,326	403	..	..	328	..	214	7,147	..	1,39,980	2,507	..	1,37,473
24,444	851	11	..	4,000	..	311	17,679	..	1,43,080	1,574		1,41,506
6,398	1,401	1,174	..	120	..	209	5,806	..	3,35,113	5	.	3,35,108
12,547	31	..	..	399	..	589	24,260	..	1,24,041	201	..	1,23,840
39,387	104	..	..	324	..	851	19,820	..	1,82,894	2,299	..	1,80,595
4,313	22	..	..	..	..	53	2,618	..	13,426	1	..	13,425
1,39,815	12,612	1,185	..	6,132	..	3,135	98,325	..	13,16,194 —782	16,539 -2,364 (b)	..	12,97,509

* Refunds made in treasuries which the Accountant-General states cannot be distributed division-war.

Summary of revenue of the different

(1)	Budget heads— I Timber and other produce removed from the forests by Government agency. Timber. (2)	Firewood and charcoal. (3)	Bamboos. (4)	Sandalwood. (5)	Grass and other minor produce. (6)	II. Timber and other produce consumers or Timber. (7)	Firewood and charcoal. (8)	Bamboos. (9)	Grazing and fodder grass. (10)
Fifth Circle.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Direction	(a) 1,829	..	..	(b) 2,28,814	..	..	..	..	..
Kollegal	92	..	..	..	..	4,184	2,732	4,400	38,551
Coimbatore, North.	338	2	..	1,72,010	.	11,224	28,615	18,153	13,593
Coimbatore, South.	1,16,884	1	..	..	2,275	11,433	11,091	4,850	5,613
Madura	9,692	278	..	..	..	8,488	30,935	3,416	26.749
Tinnevelly ..	162	10	..	(c) ..	..	2,291	1,52,596	1,212	12,877
Total ..	1,28,937	291	..	4,00,824	2,275	37,620	2,25,969	32,031	1,27,383
Sixth Circle.									
Direction	..	..	..	..	..	..	..	..	..
North Mangalore ..	35,430	776	1,882	22,886	..	23,530	30,326	3,652	5,867
South Mangalore ..	69,80. (b)	7,284	1,083	2,880	..	10,935	4,276	160	9,292
Wynaad	1,37,743	..	2	..	5	704	470	1,009	4,816
Nilambur	2,78,181	353	11,154	..	78	3,584	50	..	..
The Nilgiris ..	25,948	31,803	..	46,520	551	4,870	11.367	1,298	9,267
Palghat	74	..	..	..	..	18,550	39,658	7,822	6,356
Forest Research officer.	..	..	..	..	..	..	..	..	..
Total ..	5,47,178	40,221	14,121	72,286	(c) 631	62,173	86,147	13,941	35,598

Note for fifth Circle—

(a) Rupees 1,811 relates to Coimbatore, South, and Rs. 18 to Sixth Circle.

(b) Rupees 90,675 relates to Kollegal and Rs 1,38,139 to Coimbatore, North.

(c) Excludes Rs. 877 realized in the Fourth Circle.

Net revenue for Fifth Circle Rs. 11,64,896.

districts for the year 1924–25—*cont.*

Receipts.

removed from the forests by purchasers.				III. Confiscated drift and waif-wood.	IV. Revenue from forest not managed by Government—Revenue from shared and private forests.	V. Miscellaneous.		Total receipts.	Deduct 'Refunds'.	Net total receipts.
Other produce.	Rents for trees tapped.	Other items.	Commutation.			Fines and forfeitures.	Other sources			
(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Rs.	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.
..	..	..	..	..	..	..	275	2,30,918	2,519	2,28,399
3,691	43	..	..	133	..	1	7,321	61,148	54	61,094
9,701	404	..	..	2,435	..	3,765	14,763	3,04,943	565	3,04,378
7,305	..	..	..	78	..	60	54,115	2,13,707	715	2,12,990
31,741	..	..	..	2,495	..	359	20,447	1,34,600	736	1,33,864
42,361	..	..	..	1,099	..	851	10,322	2,23,781	469	2,23,312
94,799	447	..	..	6,240	..	4,976	1,07,243	11,69,095	5,058	11,64,037
..	..	..	..	..	..	..	5	5	(a) 342	—337
10,221	383	..	..	1,390	..	695	6,808	1,43,846	215	1,43,633
5,286	379	..	..	264	..	372	9,469	1,21,482	1,043	1,20,439
3,656	..	..	..	201	..	3,250	7,403	1,59,259	1,544	1,57,715
3,712	2	..	..	54	..	325	4,278	3,01,776	87	3,01,689
1,082	..	..	..	15	..	301	16,560	1,49,582	92	1,49,490
9,285	..	..	..	223	..	201	7,423	89,592	206	89,386
..	..	..	..	..	..	..	4	4	..	4
33,242	764	..	..	2,147	..	5,144	51,950	9,65,546	3,527 + 1,167 (d)	9,60,852

Note for Sixth Circle—

(a) Relates to the Forest Exploitation division under the Chief Forest Engineer.

(b) Excludes Rs. 18 credited in the Fifth Circle on account of sale-proceeds of timber from Messrs Howard Brothers & Co., London

(c) Excludes Rs. 477 on account of sale of tusks credited in the Fifth Circle (Nilgiris Rs. 356 Nilambur Rs. 22, Wynaad Rs. 38, and South Mangalore Rs. 61)

(d) Represents refunds made in treasuries on account of unreserved lands.

Summary of expenditure of the different districts for the year 1924-25.

Budget heads.	Direction.	Ganjam.	Vizagapatam	Godavari, Upper.	Godavari, Lower.	Guntur.	Nellore.	Total.
FIRST CIRCLE.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
B. Conservancy and Works.								
I. Timber and other produce removed from the forests by Government Agency—								
(a) Timber	..	59,864	221	12,361	—5	..	..	63,144
(b) Firewood and charcoal ..	..	1,062	..	183	..	..	..	1,245
(c) Bamboos ..	..	..	..	..	..	..	..	..
(d) Sandalwood	..	..	..	..	..	..	..	..
(e) Grass and other minor produce.		..	..	..	30	19	6,468	6,517
II. Timber and other produce removed from the forests by consumers or purchasers.	..	4,800	3,113	3,061	13,563	15,168	1,987	41,692
III. Confiscated drift and waifwood-		63	..	35	..	..	..	98
V. Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	480	..	..	..	..	480
VI. Live-stock, stores, tools and plant—								
(a) Purchase of cattle ..	..	..	..	..	..	..	..	..
(b) Feed and keep of cattle	..	..	..	1,173	..	..	..	1,173
(c) Stores, tools and plant (Ordinary).	143	364	131	875	7,032	527	918	10,162
Do. (Capital).	..	..	..	..	..	..	172	
VII. Communications and buildings—								
(a) Roads and bridges (ordinary)	..	912	369	275	388	1,982	39	6,847
Do. (Capital) ..	..	1,724	159	162	262	575	..	
(b) Buildings (ordinary) ..	860	4,975	1,502	1,721	1,399	1,227	2,145	19,401
Do. (Capital).. ..	..	761	16	3,449	..	3,089	257	
(c) Other works	..	3	33	60	..	200	96	482
VIII Demarcation, improvement and extension of forests—						55	35	
(a) Demarcation (ordinary)..	..	10	..	..	17	..	10	77
Do. (Capital)..	..	..	..	23	..	17	..	
(b) Cost of forest settlement, compensation for land and rights.	..	..	..	..	..	25	..	25
(c) Surveys—								
(1) Local	..	..	..	..	44	..	..	44
(2) India	..	..	..	..	..	..	..	..
(d) Working-plans	..	..	..	..	..	..	..	..
(e) Sowing and planting ..	295	..	47	50	240	24	19	1,188
(Capital) ..	..	..	..	..	440	70	..	..
(f) Protection from fire ..	..	5,167	1,313	4,752	4,078	177	397	15,884
(g) Other works	..	1,755	231	391	298	1,365	847	4,887
IX. Miscellaneous—								
Non-voted—								
(a) Rates and taxes	291	..	1	..	88	..	..	380
Voted—								
(b) Law charges	..	..	60	..	..	123	..	183
(c) Other charges	..	250	30	1	..	193	33	507
Investments on Government commercial undertakings.	..	25,959	..	..	..	..	..	25,959
Loss on Government commercial undertakings.	..	..	..	..	..	..	..	..
Total, B. Conservancy and Works ..	1,589	70,225	7,527	24,938	27,172	21,040	12,959	2,00,675
(Capital) ..	..	2,485	175	1,634	702	3,806	464	

Summary of expenditure of the different districts for the year 1924-25 – *cont.*

Budget heads.	Direction.	Ganjam.	Vizagapatam.	Godavari, Upper.	Godavari, Lower.	Guntur.	Nellore.	Total.
FIRST CIRCLE—*cont.*	RS.	RS.	RS	RS	RS.	RS.	Rs	RS.
C. Establishments.								
I. Pay of officers—								
Non-voted—								
(*a*) Conservators	31,351	..	..	..	..	..	..	31,351
(*b*) Superior officers appointed by the Secretary of State.	..	20,474	..	..	..	4,500		24,974
II. Pay of officers—								
Voted—								
Superior officers appointed in India.	..	3,450	6,032	13,314	10,883	19,527	9,566	62,772
III. Pay of Establishments—								
Voted—								
(*a*) Subordinate forest and depot establishments.	..	49,087	16,758	33,875	37,832	38,717	54,115	2,30,384
(*b*) Office establishments	8,824	13,020	5,909	10,735	12,767	9,362	10,259	70,876
IV. Allowances, Honoraria, etc.—								
(*a*) Travelling allowance (excluding fixed travelling allowance)—								
(1) Conservators	2,602	437	95	246	394	150	..	3,924
(2) Superior officers	..	4,798	1,276	2,261	3,219	3,444	1,442	16,440
(3) Subordinate forest and depot establishments.	..	6,106	1,599	3,468	3,633	3,037	3,050	20,893
(4) Office establishments ..	1,209	1,450	500	1,928	1,845	1,590	980	9,502
(*b*) Fixed travelling allowance, conveyance allowance, etc —								
(1) Fixed travelling allowance and conveyance allowance.	..	4,069	1,676	2,982	3,678	3,177	3,766	19,348
(2) House-rent and other allowances.	..	..	..	..	..	..	..	..
V. Contingencies—								
(*a*) Contract group—								
(1) Service postage and telegram charges.	502	1,313	769	997	1,279	1,012	948	6,820
(2) Other contract contingencies.	726	1,282	580	1,185	1,983	1,896	1,160	8,313
(*b*) Non-contract groups—								
Non-voted—								
(1) Rates and taxes	174	157	364	..	174	40	63	972
(2) Pay of menials	..	..	..	..	..	..	..	..
(3) Rents	..	..	..	99	171	144	..	414
(4) Other contingencies ..	73	761	243	118	..	225	286	1,706
Total, C. Establishments ..	45,161	1,06,105	35,801	71,208	77,858	86,321	85,635	5.08,689

Summary of expenditure of the different districts for the year 1924–25—*cont.*

Budget heads.	Direction.	Bellary.	Anantapur.	Kurnool, East.	Kurnool, South.	Kurnool, West.	Cuddapah, North.	Cuddapah, South.	Cuddapah, West.	Chittoor.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.
SECOND CIRCLE.											
B. Conservancy and Works.											
I. Timber and other produce removed from the forests by Government Agency—											
(*a*) Timber	..	323	..	3,065	12,386	4,094	..	1,705	..	35	22,108
(*b*) Firewood and charcoal	..	..	100	223	..	3,636	..	..	121	1	4,081
(*c*) Bamboos	..	..	..	3,586	..	11,275	..	..	..	..	14,861
(*d*) Sandalwood	..	..	..	..	..	..	..	..	..	565	565
(*e*) Grass and other minor produce	..	..	..	933	4	2,000	174	5	292	..	3,408
II. Timber and other produce removed from the forests by consumers or purchasers.	..	1,327	3,822	3,534	4,443	8,684	2,448	2,354	5,02.	9,067	40,701
III. Confiscated drift and waifwood	..	..	11	13	38	33	57	13	57	7	229
VI. Live-stock, stores, tools and plant—											
(*a*) Purchase of cattle	..	..	..	..	..	..	..	..	..	40	40
(*b*) Feed and keep of cattle	..	..	..	..	..	2,409	..	..	..	29	2,438
(*c*) Stores, tools and plant—											
Ordinary	1	105	127	509	2,655	331	155	58	286	439	4,666
Capital	..	..	..	..	..	..	..	144	..	..	144
VII. Communications and buildings—											
(*a*) Roads and bridges—											
Ordinary	..	..	299	4,939	6,064	3,009	470	582	819	1,432	17,614
Capital	..	..	..	1,439	2,860	1,724	..	199	..	..	6,222
(*b*) Buildings—											
Ordinary	198	809	2,142	2,507	1,386	2,316	1,609	1,235	2,302	3,195	17,699
Capital	..	..	125	438	2,505	1,060	606	103	902	515	6,254
(*c*) Other works—											
Ordinary	..	..	55	284	559	117	415	20	479	1	1,930
Capital	..	..	..	378	..	481	108	180	..	648	1,795
VIII. Demarcation, improvement and extension of forests—											
(*a*) Demarcation—											
Ordinary	..	21	148	..	35	199	135	..	119	61	718
Capital	..	..	40	..	59	..	..	..	190	..	289

Summary of expenditure of the different districts for the year 1924-25—*cont.*

Budget heads.	Direction.	Bellary.	Anantapur.	Kurnool, East.	Kurnool, South.	Kurnool, West.	Cuddapah, North.	Cuddapah, South.	Cuddapah, West.	Chittoor.	Total.
SECOND CIRCLE—*cont.*	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
B. Conservancy and Works—cont.											
VIII. Demarcation, improvement and extension of forests—*cont.*											
(*b*) Cost of forest settlement, compensation for land and rights—											
Ordinary	..	..	..	..	..	..	..	..	..	..	..
Capital	..	..	..	..	..	..	32	..	..	45	77
(*c*) Surveys—											
Local	..	..	..	897	..	2	..	..	..	..	899
(*d*) Working-plans—											
Ordinary	..	..	..	..	11	..	..	..	..	..	11
Capital	..	..	..	..	..	..	..	..	..	..	..
(*e*) Sowing and planting—											
Ordinary	..	29	..	282	280	464	29	140	127	638	1,989
Capital	..	..	38	13	843	1,461	..	..	..	199	2,554
(*f*) Protection from fire	..	48	..	225	1,035	1,114	1,075	1,099	1,444	2,900	8,940
(*g*) Other works—											
Ordinary	..	200	3	1,823	670	200	218	837	1,179	970	6,100
Capital	..	..	..	123	..	..	140	..	..	..	263
IX. Miscellaneous—											
(*a*) Rates and taxes	..	..	..	..	..	..	..	..	..	..	..
(*b*) Law charges	..	..	..	.	3	20	..	2	6	2	33
(*c*) Other charges	..	507	..	739	..	2,027	58	32	87	389	3,839
Total, B. Conservancy and Works ..	199	3,369	6,910	25,950	36,336	46,656	7,729	8,708	13,432	21,178	1,70,467
C. Establishments.											
I. Salaries—											
(*a*) Conservators	44,660	..	..	..	..	..	..	..	..	..	44,660
(*b*) Superior officers appointed by the Secretary of State for India.	7,143	..	..	..	..	4,700	..	7,798	..	6,100	25,741
II. Superior officers appointed in India	..	8,983	6,050	6,546	9,923	14,020	5,849	4,200	7,140	6,650	69,361

Summary of expenditure of the different districts for the year 1924-25—*cont.*

Budget heads.	Direction	Bellary.	Anantapur.	Kurnool, East.	Kurnool, South.	Kurnool, West.	Cuddapah, North.	Cuddapah, South.	Cuddapah, West.	Chittoor.	Total.
SECOND CIRCLE—*cont.*	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
C. Establishments—cont.											
III. (*a*) Subordinate forest and depot establishments.	..	30,319	37,660	34,752	44,923	54,222	32,185	35,286	30,713	51,610	3,51,670
(*b*) Office establishments	21,961	6,547	8,224	10,892	9,784	16,912	7,946	9,018	9,948	10,413	1,11,645
(*e*) Deputation and special allowances	..	..	..	..	..	..	..	..	..		..
(*f*) Grain compensation allowance	..	..	..	..	..	..	..	..	..	..	..
IV. Travelling allowances—											
(*a*) (1) Conservators	8,018	..	..	..	..	..	..	..	..	..	8,018
(2) Superior officers	634	1,297	983	1,996	3,567	3,558	1,227	2,738	1,506	2,435	19,941
(3) Subordinate forest and depot establishments.	..	1,889	2,783	3,777	4,395	6,119	5,604	1,971	2,131	3,607	32,276
(4) Office establishments	2,361	477	1,011	1,340	1,415	2,194	633	912	918	1,062	12,323
(*b*) (1) Fixed conveyance and travelling allowances.	150	2,057	2,374	3,162	4,149	4,817	2,219	3,397	3,063	4,897	30,285
V. Contingencies—											
(*a*) Contract—											
(1) Service postage and telegrams	771	476	707	944	915	1,055	615	707	549	873	7,612
(2) Other contingencies	3,026	787	1,423	1,352	1,841	1,425	1,420	1,038	1,197	1,250	14,759
(*b*) Non-contract—											
(1) Rates and taxes	..	297	62	25	64	103	94	26	21	208	930
(2) Pay of menials	..	..	..	..	..	..	..	..	..	..	..
(3) Rents	600	..	14	408	38	88	..	..	162	..	1,310
(4) Other contingencies	149	29	20	2,907	369	5,278	135	117	219	386	9,609
Total, C. Establishments ..	* 89,473	53,158	61,311	68,101	81,383	1,14,491	57,927	67,208	57,567	89,491	7,40,110 —23,098(*a*)
Grand Total of Expenditure ..	..	..	..	..	..	..	..	..	..	..	7,17,012

* Represents the Direction Charges of the Second and old Third Circles.

(*a*) Deduction made on account of direction charges apportioned to the First and Fourth Circles, owing to the transfer of Guntur, Nellore and North Vellore districts to those circles.

Summary of expenditure of the different districts for the year 1924–25—*cont.*

Budget heads.	Direction.	Chingleput.	Vellore, North.	Vellore South.	Vellore, West.	Salem, East.	Salem, North.	Salem, Central.	Salem, South.	Tanjore.	Total.
8. FORESTS.											
FOURTH CIRCLE.											
B. Conservancy and Works.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Timber and other produce removed from the forests by Government Agency—											
(*a*) Timber	..	..	93	2	65	15	287	..	..	..	462
(*b*) Firewood and charcoal	..	..	20	..	..	..	91	..	..	..	111
(*c*) Bamboos	..	..	..	..	..	..	..	..	96	..	96
(*d*) Sandalwood	..	..	14	6,803	6,208	1,129	21,144	2,469	3,259	..	41,026
(*e*) Grass and other minor produce	..	..	25	..	1	..	..	..	53	..	79
II. Timber and other produce removed from the forests by consumers or purchasers.	..	2,285	9,566	2,526	2,445	5,362	3,387	5,141	4,677	150	35,539
III. Confiscated, drift and waif-wood.	..	..	..	..	15	59	12	..	41	..	127
IV. Forests not managed by Government—											
(*a*) Shared and private forests	..	..	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	..	..	..	..	1	..	..	..	1
VI. Live-stock, stores, tools and plant—											
(*a*) Purchase of cattle	..	40	..	..	..	..	..	..	..	..	40
(*b*) Feed and keep of cattle	..	18	..	..	..	..	..	..	..	..	18
(*c*) Stores, tools and plant	72	26	142	335	205	62	359	84	498	..	1,783
VII. Communications and buildings—											
(*a*) Roads and bridges	..	937	829	2,340	2,056	237	1,930	1,061	681	..	10,071
(*b*) Buildings	..	960	871	2,034	1,758	2,293	1,619	2,057	1,094	120	12,806
(*c*) Other works	..	30	149	268	56	121	107	113	19	..	863
VIII. Demarcation, improvement and extension of forests—											
(*a*) Demarcation	..	109	88	..	156	563	51	503	67	19	1,556
(*b*) Cost of forest settlement; compensation for land and rights.	..	..	..	..	..	..	..	..	..	..	..
(*c*) Surveys. { Local	..	..	..	..	..	..	..	..	..	..	..
(*c*) Surveys. { India	..	..	..	..	..	..	..	..	..	..	..
(*d*) Working-plans	..	..	..	..	..	..	..	..	..	..	..
(*e*) Sowing and planting	..	..	788	572	45	333	192	51	113	..	2,094
(*f*) Protection from fire	..	..	217	1,030	762	1,070	894	1,430	841	..	6,244
(*g*) Other works	..	125	505	787	32	184	81	96	..	110	1,920

Summary of expenditure of the different districts for the year 1924-25—*cont.*

Budget heads.	Direction.	Chingleput.	Vellore, North.	Vellore, South.	Vellore, West.	Salem, East.	Salem, North.	Salem, Central.	Salem, South.	Tanjore.	Total.
8. FORESTS—*cont.*	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
FOURTH CIRCLE—*cont.*											
B. *Conservancy and Works*—cont.											
IX. Miscellaneous—											
Non-voted—											
Rates and taxes	..	..	11	..	64	..	10	30	13	..	128
Voted—											
(*a*) Law charges	..	..	..	..	..	22	20	4	19	..	65
(*b*) Other charges	..	..	219	..	..	5	439	158	160	..	972
Total, B. Conservancy and Works	72	4,530	13,528	16,697	13,868	11,455	30,624	13,197	11,631	399	1,16,001
52-A. Forest Capital Outlay—Conservancy and works.											
I. Timber and other produce removed from the forest by Government Agency—											
(*a*) Timber	..	..	..	..	..	..	..	..	..	..	..
(*b*) Firewood and charcoal	..	..	..	..	..	..	..	..	..	..	..
(*c*) Bamboos	..	..	..	..	..	..	..	..	..	..	..
(*d*) Sandalwood	..	..	..	..	..	..	..	..	..	..	..
(*e*) Grass and other minor produce	..	..	..	..	..	..	..	..	..	..	..
II. Timber and other produce removed from the forests by consumers or purchasers.	..	..	..	..	..	..	..	..	..	..	..
III. Confiscated drift and waifwood.											
IV. Forests not managed by Government—											
(*a*) Shared and private forests	..	..	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government.											
VI. Live-stock, stores, tools and plant—											
(*a*) Purchase of cattle	..	..	..	..	..	..	..	..	..	..	..
(*b*) Feed and keep of cattle	..	..	..	..	..	..	..	..	..	..	..
(*c*) Stores, tools and plant	..	..	..	..	48	..	..	..	..	..	48
VII. Communications and buildings—											
(*a*) Roads and bridges	..	501	..	669	1,081	..	287	55	1,353		3,946
(*b*) Buildings	..	..	22	2,519	3,959	56	2,428	..	1,444	..	10,428
(*c*) Other works	..	..	..	66	196	..	38	..	..	..	300

Summary of expenditure of the different districts for the year 1924-25—*cont.*

Budget heads.	Direction.	Chingleput.	Vellore, North.	Vellore, South.	Vellore, West.	Salem, East.	Salem, North.	Salem, Central	Salem, South.	Tanjore.	Total.
FOURTH CIRCLE—*cont.*											
B. Conservancy and Works—cont.											
52—A. Forest Capital outlay.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
VIII. Demarcation, improvement and extension of forests—											
(*a*) Demarcation	..	206	..	..	..	..	101	..	126	..	433
(*b*) Cost of Forest Settlement: compensation for land and rights.	..	..	..	25	..	..	..	..	..	..	25
(*c*) Surveys { Local	..	..	..	..	..	..	..	..	..	..	..
(*c*) Surveys { India	..	..	..	..	..	..	..	..	..	..	..
(*d*) Working plans	..	..	..	..	..	..	..	..	..	..	..
(*e*) Sowing and planting	..	..	..	..	..	..	..	..	..	..	..
(*f*) Protection from fire	..	..	..	..	..	..	..	70	..	..	70
(*g*) Other works	..	..	..	..	..	..	..	..	..	..	..
IX. Miscellaneous—											
(*a*) Law charges	..	..	..	..	..	..	..	..	..	..	..
(*b*) Other charges	..	..	..	..	..	..	..	..	..	..	..
Total, 52—A. Forest Capital outlay ..	..	707	22	3,279	5,284	56	2,854	125	2,923	..	15,250
Total, B. Conservancy and 52-A. Capital outlay ..	72	5,237	13,550	19,976	19,152	11,511	33,478	13,322	14,554	399	1,31,251
C. Establishment.											
I. Salaries—											
Non-voted—											
(*a*) Conservators	25,651	..	..	..	..	..	..	..	..	..	25,651
(*b*) Superior officers appointed by the Secretary of State for India.	..	..	..	..	13,179	632	..	..	..	..	13,811
II. Salaries—											
Voted—											
Superior officers appointed in India ..	1,843	7,086	5,994	17,219	..	5,749	8,527	7,400	6,900	..	60,718
III. Establishments—											
Voted—											
(*a*) Subordinate Forest and depot establishments.	..	27,258	25,077	29,985	28,912	31,078	28,846	28,110	36,525	946	2,36,737
(*b*) Office establishments	9,864	5,924	7,335	8,933	8,245	8,918	9,190	9,919	9,719	..	78,037

Summary of expenditure of the different districts for the year 1924-25—*cont.*

Budget heads.	Direction.	Chingleput	Vellore, North.	Vellore, South.	Vellore, West.	Salem, East.	Salem, North.	Salem, Central.	Salem, South.	Tanjore.	Total.
FOURTH CIRCLE—*cont.*											
C. Establishment—cont.											
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
IV. Allowances, honoraria, etc.—											
(*a*) Travelling allowances—											
(1) Conservators	2,407	..	..	..	..	..	..	..	..	..	2,407
(2) Superior officers	837	1,237	1,296	2,089	2,167	1,093	1,715	1,210	1,469	..	13,113
(3) Subordinate Forest and depot establishments.	..	1,837	1,789	1,769	2,599	2,322	6,107	1,630	3,167	61	21,281
(4) Office establishments	548	924	494	667	919	625	822	630	1,468	..	7,097
(*b*) Fixed travelling allowance, etc.—											
(1) Fixed travelling allowance and conveyance allowances.	..	1,714	1,531	1,873	2,287	2,136	2,511	2,213	3,088	119	17,471
(2) House-rent and other allowances ..	..	..	..	..	..	..	..	..	..	..	..
V. Contingencies—											
Voted—											
(*a*) Contract items—											
(1) Service postage and telegrams ..	251	464	357	758	517	836	917	901	1,113	40	6,154
(2) Other contract contingencies ..	964	569	624	1,031	959	1,245	1,791	1,019	1,012	1	9,215
(*b*) Non-Contract items—											
Non-voted—											
(1) Rates and taxes..	..	20	55	215	92	50	15	75	42	..	564
Voted—											
(2) Pay of menials	..	..	..	..	..	..	..	..	..	..	..
(3) Rents	..	600	55	..	..	741	..	..	..	..	1,396
(4) Other contingencies	15	31	12	108	430	186	95	183	2	..	1,062
Total, C. Establishments ..	42,370 (*a*) 8,662	47,664	44,619	64,647	60,306	55,610	60,536	53,290	64,505	1,167	4,94,714 + 8,662
Grand Total of Expenditure ..	51,104	52,901	58,169	84,623	79,458	67,121	94,014	66,612	79,059	1,566	6,34,627

(*a*) Rupees 8,662 represents the proportionate establishment charges of the direction office apportioned to the North Vellore and Chingleput divisions.

Summary of expenditure of the different districts for the year 1924-25—*cont.*

Budget heads.	Direction.	Kollegal.	Coimbatore, North.	Coimbatore, South.	Madura.	Tinnevelly.	Total.
FIFTH CIRCLE. B. *Conservancy and Works.*	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Timber and other produce removed from the forests by Government Agency—							
(*a*) Timber	..	..	3,092	79,759	4,478	— 77	87,252
(*b*) Firewood and charcoal	..	..	..	..	7	..	7
(*c*) Bamboos	..	..	..	..	..	..	..
(*d*) Sandalwood	622	4,362	16,180	..	3	59	21,226
(*e*) Grass and other produce	..	1,559	10	29	..	..	1,598
II. Timber and other produce removed from the forests by consumers or purchasers.	..	2,795	6,129	1,568	11,976	5,374	27,842
III. Confiscated drift and waifwood	..	2	32	6	..	..	40
V. Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	..	4,331	..	..	4,331
VI. Live-stock, stores, tools and plant—							
(*a*) Purchase of cattle	..	..	..	3,764	..	..	3,764
(*b*) Feed and keep of cattle	..	..	..	50,413	..	..	50,413
(*c*) Stores, tools and plant	212	146	232	3,235	44	649	4,518
VII. Communications and buildings—							
(*a*) Roads and bridges	554	1,114	4,521	12,673	12,883	3,801	35,546
(*b*) Buildings	321	529	2,133	3,732	1,882	3,582	12,179
(*c*) Other works	..	50	97	142	463	6	758
VIII. Demarcation, improvements and extension of forests—							
(*a*) Demarcation	..	..	..	188	..	..	188
(*b*) Cost of forest settlement, compensation for land and rights.	..	..	..	..	..	..	..
(*c*) Surveys { Local	..	10	..	..	..	..	10
(*c*) Surveys { India	..	..	..	..	..	..	..
(*d*) Working plans	..	..	..	..	..	486	486
(*e*) Sowing and planting	..	..	..	6,732	166	199	7,097
(*f*) Protection from fire	..	639	1,511	597	2,237	792	5,776
(*g*) Other works	..	340	91	1,278	157	2,405	4,271
IX. Miscellaneous— Non-voted—							
(*a*) Rates and taxes	..	..	..	..	..	..	..
Voted—							
(*b*) Law charges	..	64	..	..	..	..	64
(*c*) Other charges	53	95	44	2,710	274	208	3,384
Total, B. Conservancy and Works.	1,762	11,705	34,072	1,71,157	34,570	17,484	2,70,750
"52-*A*—*Forest Capital Outlay.*"							
VI. Live-stock, stores, tools and plant—							
(*c*) Stores, tools and plant	589	..	..	..	483	..	1,072
VII. Communications and buildings—							
(*a*) Roads and bridges	3,706	..	..	72	263	1,036	5,077
(*b*) Buildings	4,686	..	..	120	560	6,549	11,815
(*c*) Other works	..	..	..	260	435	..	695
VIII. Demarcation, improvements and extension of forests—							
(*a*) Demarcation	..	463	100	..	863	75	1,501
(*b*) Cost of forest settlement, compensation for land and rights.	..	..	..	..	283	..	283

Summary of expenditure of the different districts for the year 1924-25—*cont.*

Budget heads.	Direction.	Kollegal.	Coimbatore, North.	Coimbatore, South.	Madura.	Tinnevelly.	Total.
FIFTH CIRCLE—*cont.*	RS.	RS.	RS.	RS.	RS.	RS.	RS.
"52-*A*—*Forest Capital Outlay*"—cont.							
VIII. Demarcation, improvements and extension of forests—*cont.*							
(*d*) Working plans	120	..	..	..	..	1,936	2,056
(*e*) Sowing and planting ..	.	..	225	5,922	..	2,541	8,688
(*g*) Other works	..	..	303	..	..	12	315
IX. Miscellaneous—							
Voted—							
(*o*) Other charges	495	..	..	..	..	..	495
Total, "52-A—Forest—Capital Outlay."	9,496	463	628	6,874	2,887	12,149	31,997
C. Establishments and Contingencies.							
I. Salaries—							
Non-voted—							
(*a*) Conservators	23,584	..	..	..	..	..	23,584
(*b*) Superior officers appointed by the Secretary of State.	316	..	8,723	19,196	9,175	1,077	38,487
II. Salaries—							
Voted—							
Superior officers appointed in India.	3,573	6,950	..	400	..	9,404	20,327
III. Establishment—							
Voted—							
(*a*) Subordinate forest and depot establishments.	1,885	32,896	41,187	36,328	38,734	39,438	1,90,468
(*b*) Office establishments	10,791	7,050	9,032	11,347	9,782	10,938	58,940
IV. Allowances, honoraria, etc.—							
(*a*) Travelling allowances—							
(1) Conservators	2,798	..	..	..	..	— 268	2,530
(2) Superior officers	998	1,945	2,216	3,447	2,835	3,920	15,361
(3) Subordinate forest and depot establishments.	704	1,611	3,914	3,750	3,449	6,021	19,449
(4) Office establishments	859	492	669	945	1,378	1,289	5,632
(*b*) Fixed travelling allowance, etc.—							
(1) Fixed travelling allowance and conveyance allowances.	175	1,920	3,675	2,341	3,697	2,600	14,408
(2) House-rent and other allowances.	..	..	..	..	297	..	297
V. Contingencies—							
Voted—							
(*a*) Contract items—							
(1) Service postage and telegram charges.	932	549	528	1,421	934	1,239	5,603
(2) Other contract contingencies.	2,191	1,006	1,315	962	1,467	1,117	8,058
(*b*) Non-contract items—							
Non-voted—							
(1) Rates and taxes	129	53	69	171	206	143	771
Voted—							
(2) Pay of menials	..	..	..	..	.	..	..
(3) Rents	..	..	48	..	.	85	133
(4) Other contingencies ..	265	45	137	1,559	14	214	2,234
Total, C. Establishments and Contingencies.	49,200	54,517	71,513	81,867	71,968	77,217	4,06,282

Summary of expenditure for 'B' Conservancy and Works for the year 1924–25.

Budget heads.	Direction.	Mangalore, North.	Mangalore, South.	Wynaad.	Nilambur.	The Nilgiris.	Palghat.	Forest Research Officer.	Total.
SIXTH CIRCLE.									
B. Conservancy and works.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Timber and other produce removed from the forests by Government Agency—	(e)								
(a) Timber ..	16,613	14,800	18,678	76,499	73,112	4,076	12	..	2,03,790
(b) Firewood and charcoal.	..	344	871	..	..	9,300	50	..	10,565
(c) Bamboos ..	..	..	..	..	15,552		33	..	15,585
(d) Sandalwood ..	..	3,018	341	..	..	1,914	..	..	5,273
(e) Grass and other minor produce.	..	..	..	1	18	381	..	..	400
II. Timber and other produce removed from the forests by consumers or purchasers.	..	1,255	544	2,447	1,902	77	4,841	..	11,066
III. Confiscated drift and waif-wood	..	50	85	40	..	1	18	..	194
IV. Forest not managed by Government—									
(a) Shared and private forests.	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government ..	..	..	..	..	8,651	..	..	..	8,651
VI. Live-stock, stores, tools and plant—									
(a) Purchase of cattle.	..	..	..	4,123	1,564	1,415	..	..	7,102
(b) Feed and keep of cattle.	..	4,368	3,853	21,259	42,010	19,698	..	..	91,188
(c) Stores, tools and plant.	1	417	375	1,649	3,292	784	209	..	6,727
VII. Communications and buildings—									
(a) Roads and bridges.	..	2,061	304	5,147	1,830	3,334	2,372	..	15,048
(b) Buildings ..	..	504	(f) 645	1,647	2,141	(i) 2,681	1,436	..	9,054
(c) Other works.	..	..	50	293	123	..	10	..	476
VIII. Demarcation, improvements and extension of forests—									
(a) Demarcation.	..	..	.	71	..	54	..	..	125
(b) Cost of forest Settlement; compensation for land and rights.	..	..	..	..	..	..	..	..	..

(e) Relates to the Forest Exploitation division, Chenat Nair.
(f) Rs. 50 relates to expenditure on account of the Logging branch.
(i) Includes Rs. 885 on account of Madras Forest College, Coimbatore.

Summary of expenditure for 'B' Conservancy and Works for the year 1924-25—*cont.*

Budget heads.	Direction.	Mangalore, North.	Mangalore, South.	Wynaad.	Nilambur.	The Nilgiris.	Palghat.	Forest Research Officer.	Total.
SIXTH CIRCLE—*cont.*									
B. Conservancy and works—cont.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
VIII. Demarcation, improvements and extension of forests—*cont.*									
(*e*) Survey ..	..	..	135	..	6	951	4	..	1,096
(*d*) Working-plans.	..	1,639	(*g*) 47	22	..	10	..	..	1,718
(*e*) Sowing and planting.	..	545	616	4,350	10,968	1,580	935	..	18,994
(*f*) Protection from fire.	..	1,944	2,354	1,288	3,371	3,883	3,093	..	15,933
(*g*) Other works.	..	33	1,367	171	28	813	..	..	2 412
IX. Miscellaneous—									
Non-voted—									
(*a*) Rates and taxes.	..	..	271	..	..	1,048	..	..	1,319
Voted—									
(*b*) Law charges ..	..	7	..	2	..	..	..	..	9
(*c*) Other charges ..	21	123	376	388	5,412	5,513	864	2,689	15,386
Total ..	16,635	31,108	30,912	1,19,397	1,69,980 (*h*)	57,513	13,877	2,689	4,42,111
52-A. Forest Capital Outlay.									
I. Timber and other produce removed from the forests by Government Agency—									
(*a*) Timber ..	..	..	..		..	..	..	..	..
(*b*) Firewood and charcoal.	..	..	..	..	..	..	..	..	..
(*c*) Bamboos ..	..	..	..	..	..	..	..	..	..
(*d*) Sandalwood ..	..	..	..	..	..	..	..	..	..
(*e*) Grass and other minor produce.	..	..	..	..	..	..	..	..	..
II. Timber and other produce removed from the forests by consumers or purchasers.	..	..	..	..	..	..	..	..	..
III. Confiscated drift and waifwood.	..	..	..	..	..	..	..	..	..
IV. Forests not managed by Government.	..	..	..	..	..	..	..	..	..
(*a*) Shared and private forests.	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government. ..	..	..	..	..	..	..	..	..	..

(*g*) Rs. 1,632 relates to expenditure on account of Logging branch.
(*h*) Includes Rs. 95 on account of Inspector of Live-stock, Calicut.

Summary of expenditure for 'B' Conservancy and Works for the year 1924-25—*cont.*

Budget heads.	Direction.	Mangalore, North	Mangalore, South.	Wynaad.	Nilambur.	The Nilgiris.	Palghat.	Forest Research officer.	Total.
SIXTH CIRCLE—*cont.*	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
52-A. Forest Capital Outlay—cont.									
VI. Live-stock stores, tools and plant—									
(*a*) Purchase of cattle.	..	..	..	..	..	..	..	..	..
(*b*) Feed and keep of cattle.	..	..	..	..	..	..	..	..	..
(*c*) Stores, tools and plant.	..	..	..	..	9,162	..	..	..	9,162
VII. Communications and Buildings—									
(*a*) Roads and bridges.	..	184	924	2,025	109	222	3,606	..	7,070
(*b*) Buildings ..	..	4,150	6,475	17,610	35,060	5,112	3,118	..	71,531
(*c*) Other works ..	..	939	444	617	1,452	..	..	..	3,452
VIII. Demarcation, improvement and extension of forests—									
(*a*) Demarcation	..	..	166	181	25	767	122	..	1,461
(*b*) Cost of forest settlement; compensation for land and right.	..	..	..	..	..	..	..	..	..
(*c*) Surveys (Local)	..	..	306	..	..	..	..	..	306
(*d*) Working plans.	..	..	..	..	..	..	.	..	..
(*e*) Sowing and planting.	..	1,832	3,282	2,092	9,919	6,902	647	..	24,674
(*f*) Protection from fire.	..	..	..	..	..	..	..	..	..
(*g*) Other works.	..	..	..	.	.	—16	..	..	.. —16
IX. Miscellaneous— Non-voted—									
(*a*) Rates and taxes.	..	..	..	..	..	..	..	..	..
(*b*) Law charges ..	..	..	..	..	..	..	..	..	..
(*c*) Other charges..	..	..	..	..	..	40	..	..	40
Total, 52-A. Forest Capital Outlay.	..	7,111	11,597	22,725	55,727	13,027	7,493	..	1,17,680
Total, Works ..	16 35	38,219	42,509	1,42,122	2,25,707	70,540	21,370	2,689	5,92,791
C. Establishment.									
I. Pay of officers—(Non-voted—									
(*a*) Conservators ..	26,107	..	..	..	..	(*j*) 10,664	.	..	36,771
(*b*) Superior officers appointed by the Secretary of State.	451	2,228	18,806	17,648	18,450	14,727	5,425	10,829	88,564
II. Pay of officers—Voted —Superior officers appointed in India.	..	6,550	6,889	4,524	11,284	8,026	4,900	..	42,173

(*j*) Relates to Fifth circle—Leave pay of Mr. Wood, Conservator of Forest on leave.

Summary of expenditure for 'C' Establishment for the year 1924-25—*cont.*

Budget heads.	Direction.	Mangalore, North.	Mangalore, South.	Wynaad.	Nilambur.	The Nilgiris.	Palghat.	Forest Research officer.	Total.
SIXTH CIRCLE—*cont.*									
C. Establishment—cont.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
III. Pay of establishment—Voted.									
(*a*) Subordinate forest and depot establishment	211	31,360	22,086	28,642	28,700	36,782	19,356	3,526	1,70,663
(*b*) Office establishments.	9,259	7,953	7,130	10,580	10,057	9,650	7,047	2,175	63,851
IV. Allowances, honoraria, etc.—									
(*a*) Travelling allowance (excluding fixed travelling allowance).	..	..	..	..	..	..	..	..	..
(1) Conservators.	4,021	..	..	..	..	..	..	..	4,021
(2) Superior officers.	..	2,545	3,863	4,660	6,369	4,552	3,113	2,832	27,964
(3) Subordinate forest and depot establishment.	..	6,527	2,515	4,086	4,227	5,519	1,833	496	25,603
(4) Office establishment.	09	644	912	1,776	1,239	840	631	642	7,293
(*b*) Fixed travelling allowance, conveyance allowance, etc									
(1) Fixed travelling allowance and conveyance allowance.	14	1,971	1,017	1,129	1,768	2,283	1,081	102	9,365
(2) House-rent and other allowances.	1,651	..	..	..	..	4,861	..	292	6,804
(*c*) Honoraria.	..	..	..	..	..	..	..	..	..
V. Contingencies—									
(*a*) Contract group—									
(1) Service postage and telegram charges	1,348	900	995	1,077	991	1,014	600	164	7,089
(2) Other contract contingencies.	544	680	598	835	1,098	1,380	948	855	6,938
(*b*) Non-contract group—									
(1) Non-voted rates and taxes.	169	..	..	..	87	187	128	..	571
(2) Pay of menials where non-contract.	..	..	..	..	..	..	..	..	..

Summary of expenditure for 'C' Establishment for the year 1924–25 - *concl.*

Budget heads.	Direction.	Mangalore, North.	Mangalore, South.	Wynaad.	Nilambur.	The Nilgiris.	Palghat.	Forest Research officer.	Total.
V. Contingencies—*cont.*									
(*b*) Non-contract group—*cont.*	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(3) Rents	..	..	68	—4	..	..	..	..	64
(4) Other contingencies.	22	198	152	900	787	383	214	16	2,672
Total, C. Establishment.	(*m*) 44,406	(*k*) 61,556	65,031	75,853	(*l*) 85,057	1,00,868	45,306	22,329	5,00,406
Grand Total, VIII. Forest B. Conservancy and works, 52. Forest Capital Outlay and C. Establishment.	61,041	99,775	1,07,540	2,17,975	3,10,764	1,71,408	66,676	25,018	10,60,197

(*k*) Includes expenditure on Logging Engineering Branch Rs. 11,906.

(*l*) Includes expenditure on Logging Engineering Branch Rs. 2,961 and of the Inspector of Livestock, Calicut, Rs. 8,331.

(*m*) Excludes expenditure included in Direction accounts on account of Working Plan Officer which has been appointed to the Nilgiris, Wynaad and Palghat divisions.

	Rs.
Nilgiris	4,727
Wynaad	6,890
Palghat	1,130
Total ..	9,747

	Rs.
Expenditure	10,60,197
Deduct V Circle ..	10,664
Madras Forest College	385
Exploitation division ..	16,613
Total ..	27,662
Net ..	10,32,535

Summary of receipts and expenditure during 1924-25 for the Presidency compiled in the Chief Conservator's office from the Conservators' statements.

Budget heads.	First Circle.	Second Circle.	Fourth Circle.	Fifth Circle.	Sixth Circle.	Forest College, Coimbatore.	Grand total, Presidency.	
							1924-25.	1923-24.
RECEIPTS.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Timber and other produce removed from the forests by Government Agency—								
(a) Timber	1,35,660	74,651	530	1,28,997	5,47,178	749	8,87,765	8,84,153
(b) Firewood and charcoal	2,283	8,543	556	291	40,221	311	52,205	52,255
(c) Bamboos	..	24,379	29	..	14,121	..	38,529	30,724
(d) Sandalwood	..	21	5,46,255	4,00,824	72,286	..	10,19,386	8,01,212
(e) Grass and other minor produce	26,536	13,135	909	2,275	634	..	43,489	24,588
Total, I ..	1,64,479	1,20,729	5,48,279	5,32,387	6,74,440	1,060	20,41,374	17,72,932
II. Timber and other produce removed from forests by consumers or purchasers—								
(a) Timber	88,357	85,829	85,513	37,620	62,173	..	3,59,492	3,88,186
(b) Firewood and charcoal	2,07,653	59,765	1,06,329	2,25,969	86,147	..	6,85,863	7,59,966
(c) Bamboos	1,21,426	50,753	89,430	32,021	13,941	..	3,07,581	3,34,998
(d) Grazing and fodder grass	2,17,467	2,14,402	2,25,657	1,27,383	35,598	303	8,20,810	9,02,019
(e) Bamboos	81,636	2,29,864	1,39,815	94,799	33,242	.	5,79,356	6,05,268
(f) Tree-owners' fees on trees tapped	31,805	75,956	12,612	447	764	..	1,21,584	1,28,108
(g) Other items	..	..	1,185	..	..	..	1,185	7,991
(h) Commutation fees	..	..	..	..	..	..	..	438
Total, II ..	7,48,344	7,16,569	6,60,541	5,18,249	2,31,865	303	28,75,871	31,26,974
III. Confiscated forest produce, drift and waif wood ..	4,987	3,563	6,132	6,240	2,147	..	23,080	15,619
IV. Forest not managed by Government—								
(a) Shared and private forests	..	..	..	..		..	..	..

V. *Miscellaneous*—								
(*a*) Fines and forfeitures	5,367	3,352	3,135	4,976	5,144	1	21,975	3,15,554
(*b*) Other sources	1,09,208	75,971	98,325	1,07,243	51,950	75,049	5,17,746	2,52,406
Total, V ..	1,14,575	79,323	1,01,460	1,12,219	57,094	75,050	5,39,721	5,67,960
Recoveries of investments on Government Commercial undertakings	46,615	..	..	..	..	..	46,615	..
Total ..	10,79,000	9,20,184	13,16,412	11,69,095	9,65,546	76,413	55,26,650	54,83,485
Deduct refunds—Voted ..	9,548	10,375	18,903	5,058	4,694	..	48,578	47,692
Net Total, Receipts ..	10,69,452	9,09,809	12,97,509	11,64,037	9,60,852	76,413	54,78,072	54,35,793
							(*a*) 35,722	(*a*) 14,598
							(*b*) 55,887	(*c*) 36,572
							55,69,681	54,86,963
								—(*d*) 71,406
								54,15,557
EXPENDITURE.								
B. Conservancy and Works.								
I. Timber and other produce removed from forests by Government Agency—								
(*a*) Timber	63,444	22,108	462	87,252	2,03,790	..	3,77,056	3,00,127
(*b*) Firewood and charcoal	1,245	4,081	111	7	10,565	..	16,009	19,084
(*c*) Bamboos	..	14,861	96	..	15,585	..	30,542	22,852
(*d*) Sandalwood	..	565	41,026	21,226	5,273	..	68,090	76,311
(*e*) Grass and other minor produce	6,517	3,408	79	1,598	400	..	12,002	14,701
Total, B-I ..	71,206	45,023	41,774	1,10,083	2,35,613	..	5,03,699	4,33,075
II. Timber and other produce removed from the forests by consumers or purchasers.	41,692	40,701	35,539	27,842	11,066	..	1,56,840	1,67,317
III. Confiscated drift and waif wood	98	229	127	40	194	..	688	1,135
IV. Forests not managed by Government—								
(*a*) Shared and private forests	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government.	480	..	1	4,331	8,651	..	13,463	8,740

(*a*) Engineering Branch.
(*b*) Added with a view to tally with the Accountant-General's figures. Includes figures for the Parlakimedi Maliahs (Rs. 35,359) and other agency tracts for which separate figures are not available.
(*c*) Includes Rs. 35,541 for agency tracts, Rs. 63 for General Direction and Rs. 968 added to tally with the Accountant-General's figures.
(*d*) Deducted in order to tally with the Accountant-General's actuals in the Civil Budget Estimate—Final Edition, details for which are not available

Summary of receipts and expenditure during 1924–25 for the Presidency compiled in the Chief Conservator's office from the Conservators' statements—*cont.*

Budget heads.	First Circle.	Second Circle.	Fourth Circle.	Fifth Circle.	Sixth Circle.	Forest College, Coimbatore.	Grand total, Presidency.	
							1924-25.	1923-24
EXPENDITURE—*cont.*								
B. Conservancy and Works—cont.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
VI. Live-stock, stores, tools and plant—								
(*a*) Purchase of cattle	..	40	40	3,764	7,102	..	10,946	17,311
(*b*) Feed and keep of cattle	1,173	2,438	18	50,413	91,188	..	1,45,230	1,35,534
(*c*) Stores, tools and plant	9,990	4,666	1,783	4,518	6,727	3,738	31,422	35,348
Total, B-VI ..	11,163	7,144	1,841	58,695	105,017	3,738	1,87,598	1,88,193
VII. Communications and buildings—								
(*a*) Roads and bridges	3,965	17,61	10,071	35,546	15,048	1,593	83,837	1,82,317
(*b*) Buildings	13,829	17,699	12,806	12,179	9,054	2,845	68,412	1,54,826
(*c* Other works	392	1,930	863	758	476	289	4,708	12 137
Total, B-VII ..	18,186	37,243	23,740	48,483	24,578	4,727	1,56,957	3,49,280
VIII. Demarcation, improvement and extension of forests—								
(*a*) Demarcation	87	718	1,556	188	125	..	2,624	6,999
(*b*) Cost of forest settlement compensation for land and rights.	25	..	..	..	..	..	25	5,521
(*c*) Surveys (1) Local	44	899	..	10	1,096	..	2,049	1,336
(2) India	..	..	..	.	..	..	.	.
(*d*) Working-plans	..	11	..	486	1,718	..	2,215	4,615
(*e*) Sowing and planting..	6~8	1,989	2,094	7,097	18,994	2,828	33,680	77,728
(*f*) Protection from fire	15,884	8,940	6,244	5,776	15,933	..	52,777	58,812
(*g*) Other works	4,887	6,100	1,920	4,271	2,412	..	19,590	20,730
Total, B-VIII ..	21,555	18,657	11,814	17,828	40,278	2,828	1,12,960	1,75,741

IX. *Miscellaneous*—								
Non-voted—								
(*a*) Rates and taxes	380	..	128	..	1,319	..	1,827	1,194
Voted—								
(*b*) Law charges	183	33	65	64	9	..	354	1,699
(*c*) Other charges	507	3,839	972	3,384	15,386	603	24,691	17,976
Total, B-IX ..	1,070	3,872	1,165	3,448	16,714	603	26,872	20,869
Total, B. Conservancy and Works ..	1,65,450	1,52,869	1,16,001	2,70,750	4,42,111	11,896	11,59,077	13,39,350
	..	..	..	..	..	..	(*a*) 1,56,397	(*a*) 1,17,362
	..	..	..	..	..	..	(*b*) 2,564	(*c*) 10,514
	..	..	..	..	..	..	13,18,036	14,67,226
C. Establishment.								
I. Pay of officers—								
Non-voted—								
(*a*) Conservators	31,351	44,660	25,651	23,584	36,771	..	1,62,017	1,44,100
(*b*) Superior officers appointed by the Secretary of State.	24,974	25,741	13,811	38,487	88,564	25,065	2,16,642	2,48,635
Total, C-I ..	56,325	70,401	39,462	62,071	1,25,335	25,065	3,78,659	3,92,735
II. Pay of officers—								
Voted—								
Superior officers appointed in India ..	62,772	69,361	60,718	20,327	42,173	17,595	2,72,946	2,63,184
III. Establishment—								
Voted—								
(*a*) Subordinate Forest and Depot establishments.	2,30,384	3,51,670	2,36,737	1,90,468	1,70,663	8,035	12,87,957	12,32,986
(*b*) Office establishments	70,876	1,11,645	78,037	58,940	63,851	8,964	3,92,313	3,92,949
Total, C-III ..	3,01,260	4,63,315	3,14,774	2,49,408	2,34,514	16,999	15,80,270	16,25,935
IV. Allowances, Honoraria, etc —								
(*a*) Travelling allowance—								
(1) Conservators	3,924	8,018	2,407	2,530	4,021	..	20,900	20,096
(2) Superior officers	16,440	19,941	13,113	15,361	27,964	4,853	97,672	93,673
(3) Subordinate Forest and Depot establishments.	20,893	32,276	21,281	19,449	25,603	2,545	1,22,047	1,27,324
(4) Office establishments	9,502	12,323	7,097	5,632	7,293	1,090	42,937	45,060

(*a*) Forest Engineering Branch.
(*b*) Added as per Accountant-General's figures. Includes expenditure for Agency tracts for which separate figures are not available.
(*c*) Includes Rs. 7,874 for the Agency tracts, Rs. 1,500 for general direction and Rs. 1,140 added tally with the Accountant-General's figures.

Summary of receipts and expenditure during 1924–25 for the Presidency compiled in the Chief Conservator's office from the Conservators' statements—*cont.*

Budget heads.	First Circle.	Second Circle.	Fourth Circle.	Fifth Circle.	Sixth Circle.	Forest College, Coimbatore.	Grand total, Presidency. 1924–25.	Grand total, Presidency. 1923–24.
EXPENDITURE—*cont.*								
C. Establishment—cont.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(*b*) Fixed travelling allowance, etc.—								
(1) Fixed travelling allowance and conveyance allowance.	19,348	30,285	17,471	14,408	9,365	7	90,884	82,570
(2) House-rent and other allowances ..	..	..	..	297	6,804	..	7,101	21,480
(*c*) Honoraria	..	..	..	..	..	855	855	835
Total, C–IV ..	70,107	1,02,843	61,369	57,677	81,950	9,350	3,82,396	3,91,038
V. Contingencies—								
(*a*) Contract group—								
(1) Service postage and telegram charges.	6,820	7,612	6,154	5,603	7,089	..	33,278	32,598
(2) Other contract contingencies ..	8,313	14,759	9,215	8,058	6,938	..	47,283	51,547
(*b*) Non-contract group—								
Non-voted—								
(1) Rates and taxes	972	900	564	771	571	66	3,844	4,808
(2) Pay of menials	..	..	..	..	..	2,811	2,811	2,537
(3) Rents	414	1,310	1,396	133	64	..	3,317	4,305
(4) Other contingencies	1,706	9,609	1,062	2,234	2,672	6,320	23,603	24,946
Total, C–V ..	18,225	34,190	18,391	16,799	17,334	9,197	1,14,136	1,20,741
Grand Total ..	5,08,689	7,40,110	4,94,714	4,06,282	5,00,406	78,206	27,28,407	..
	..	(*a*)—23,098	(*b*)+8,662	..	..	..	— 14,436	..
	5,08,689	7,17,012	5,03,376	4,06,282	5,00,406	78,206	27,13,971	27,93,633
Engineering Branch	..	..	..	..	..	..	2,03,007	1,06,438
Forest Panchayat Officer	..	..	..	..	..	..	31,611	29,621
Passage pay	..	..	..	..	..	..	18,000	..
	..	..	..	..	..	..	(*c*)+ 64,444	(*d*) 51,915
Total, C. Establishment ..	..	.	..	..	..	..	30,29,033	29,81,607
Total, B and C. ..	..	..	..	..	..	..	43,47,069	44,48,833

8—*a.* General Direction.	..	..	..	..	..	..	1,07,570	1,17,772
Investment on Government Commercial undertakings.	..	..	..	..	..	..	—4,678	29,234
Loss on Government Commercial undertakings.	..	..	..	..	..	..	6,059	6,216
Loss or gain by exchange transactions	..	..	..	..	..	..	35,054	27,459
Expenditure in England	..	..	..	..	..	..	98,110	59,648
8—A. Capital outlay charged to Revenue. ..	..	..	..	..	..	..	2,90,581	..
52-A. Do. on forests	..	..	..	..	..	..	2,38,031	(*e*) 24,290
Total Expenditure ..	..	..	..	..	..	..	51,17,796	46,93,452

(*a*) Deduction made on account of Direction charges apportioned to I and IV circles owing to the transfer of Guntûr, Nellore and North Vellore divisions.
(*b*) Establishment charges of the Direction office apportioned to North Vellore and Chingleput divisions.
(*c*) Added as per Accountant-General's figures and includes figures for the Parlakimedi Maliahs (Rs. 38,358) and other Agency tracts for which separate figures are not available.
(*d*) Agency tracts.
(*e*) Added as per Accountant-General's figures

Annual Form No. 81.

Forest Department, Madras Presidency.

Outstandings and liabilities on account of contractors and disbursers for the year 1924–25.

District.	Department debtor.			Department creditor.			Balance due.	
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To department (outstandings).	By department (liabilities).
		Rs. A. P.		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
First Circle.								
Direction	..	891 1 0	..	42 4 9	860 11 0	902 15 9	11 14 9	..
Ganjam	..	1,58,275 9 0	..	1,387 9 11	1,59,115 11 11	1,60,503 5 10	2,227 12 10	..
Vizagapatam	..	32,085 5 5	..	207 4 6	{ 31,878 0 11 +212 10 1 }	32,297 15 6	212 10 1	..
Lower Godavari	..	88,448 2 6	..	1,997 4 0	87,786 8 1	89,783 12 1	1,335 9 7	..
Parlakimedi Maliah	..	23,220 2 11	..	93 6 8	22,948 9 0	23,041 15 8	−178 3 3	..
Golkonda Agency	..	9,155 3 9	..	30 2 0	9,168 8 0	9,198 10 0	43 6 3	..
Upper Godavari	..	72,676 6 7	..	622 1 7	72,319 6 3	72,941 7 10	365 1 3	..
Guntur	..	75,850 9 6	..	103 14 2	76,175 13 1	76,279 11 3	429 1 9	..
Nellore	..	81,023 8 1	..	421 3 7	80,815 1 6	81,236 5 1	212 13 0	..
Kistna	..	3,608 15 3	..	171 3 6	3,437 11 9	3,608 12 9	..	..
Total ..	..	5,45,235 0 0	..	5,076 6 8	5,44,506 1 6 +212 10 1	5,49,795 2 3	4,560 2 3	..
Second Circle.								
Direction	..	2,491 2 1	..	47 14 10	2,241 14 0	2,289 12 10	−201 5 3	
Kurnool, East	..	85,026 1 10	..	373 15 2	85,833 12 11	86,207 12 1	1,181 10 3	..
Do South	..	1,08,177 6 5	..	907 13 9	1,08,692 13 11	1,09,600 11 8	1,423 5 3	..
Do. West	..	1,29,667 14 7	..	997 12 3	1,30,361 12 9	1,31,359 9 0	1,691 10 5	..
Bellary	..	39,500 8 11	..	242 13 4	39,633 9 0	39,876 6 4	375 13 5	..
Anantapur	..	55,486 13 10	..	54 6 1	55,841 1 9	55,895 7 10	408 10 0	..
Chittoor	..	90,560 4 1	..	814 14 6	89,912 5 11	90,727 4 5	167 0 4	..
Cuddapah, North	..	51,921 7 4	..	241 9 0	51,760 1 0	52,001 10 0	80 2 8	..
Do. South	..	55,038 3 3	..	41 15 9	55,014 7 5	55,056 7 2	18 3 11	..
Do. West	..	55,920 1 5	..	325 12 6	55,664 11 6	55,990 8 0	70 6 7	..
Third Circle.—Direction ..	..	1,272 12 7	..	46 4 6	1,249 14 1	1,296 2 7	23 6 0	..
Total ..	..	6,75,062 12 4	..	4,095 3 8	6,76,206 8 3	6,80,301 11 11	5,238 15 7	..

Fourth Circle.								
Direction	..	1,001 10 2	..	57 3 5	951 7 0	1,008 10 5	7 0 3	..
Vellore, North	..	46,797 11 4	..	220 7 7	46,657 13 5	46,878 5 0	80 9 8	..
Do. South	..	64,707 3 2	..	188 12 10	64,693 3 0	64,881 15 10	174 12 8	..
Do. West	..	63,283 1 5	..	124 1 4	63,302 9 10	63,426 11 2	143 9 9	..
Salem, East	..	55,891 4 8	..	270 0 6	56,125 14 4	56,395 14 10	504 10 2	..
Do. North	..	97,484 8 0	..	1,234 12 9	96,895 8 7	98,130 5 4	645 13 4	..
Do. Central	..	51,178 2 8	..	713 12 1	50,591 10 0	51,305 6 1	127 3 5	..
Do. South	..	68,872 8 2	..	588 0 11	68,385 0 11	68,973 1 10	100 9 8	..
Tanjore	..	135 0 0	..	..	135 0 0	135 0 0	..	..
Chingleput	..	32,814 14 9	..	283 11 6	32,755 3 0	33,038 14 6	223 15 9	..
Total ..	..	4,82,166 0 4	..	3,680 14 11	4,80,493 6 1	4,84,174 5 0	2,008 4 8	..
Fifth Circle.								
Direction	..	22,144 6 10	..	540 1 9	21,759 10 0	22,299 11 9	155 4 11	..
Madura	..	1,09,331 7 2	..	227 2 0	1,09,313 13 8	1,09,540 15 8	209 8 6	..
Tinnevelly	..	98,944 11 3	..	1,060 12 2	99,962 1 10	1,01,022 14 0	2,078 2 9	..
Kollegal	..	53,080 12 7	..	136 8 3	53,654 2 0	53,790 10 3	709 13 8	..
Coimbatore, North	..	95,442 15 0	..	559 9 4	95,103 9 5	95,663 2 9	220 3 9	..
Do. South	..	2,38,824 2 6	..	5,387 6 8	2,32,837 10 3	2,38,225 0 11	4,400 14 5	..
Total ..	..	6,12,768 7 4	..	7,911 8 2	6,12,630 15 2	6,20,542 7 4	7,774 0 0	..
Sixth Circle.								
Direction	..	2,399 6 4	..	383 2 1	2,312 4 11	2,695 7 0	296 0 8	..
Nilgiris	..	1,13,373 5 5	..	921 1 5	1,12,724 3 2	1,13,645 4 7	271 15 2	..
Wynaad	..	1,39,942 0 5	..	388 8 7	1,41,283 2 10	1,41,671 11 5	1,729 11 0	..
Nilambur	..	1,72,508 14 7	..	5,375 13 8	1,67,923 6 0	1,73,299 3 8	790 5 1	..
Mangalore, North	..	90,801 7 0	..	572 5 0	90,407 6 1	90,979 11 1	178 4 1	..
Do. South	..	78,211 13 8	..	1,563 6 3	78,697 13 3	80,261 3 6	2,049 5 10	..
Palghat	..	58,298 14 10	..	1,243 7 4	57,407 0 8	58,650 8 0	351 9 2	..
Total ..	..	6,55,535 14 3	..	10,447 12 4	6,50,755 4 11	6,61,203 1 3	5,667 3 0	..
Forest Engineering Branch.								
Forest Engineer	..	55,794 11 8	..	588 0 11	55,536 13 2	56,124 14 1	330 2 5	..
Forest Exploitation	..	2,01,453 3 11	..	16,937 2 5	1,85,946 5 9	2,02,883 8 2	1,430 4 3	..
Total ..	..	2,57,247 15 7	..	17,525 3 4	2,41,483 2 11	2,59,008 6 3	1,760 6 8	..
Forest Research Officer ..	..	7,708 3 5	..	258 11 8	7,661 5 0	7,920 0 8	211 13 8	..
Grand Total, Presidency ..	..	32,35,724 5 3	..	48,995 12 9	32,13,949 2 8	32,62,945 2 8	27,220 13 5	..

ACCOUNTANT-GENERAL'S OFFICE,
MADRAS, *September* 1925.

J. H. G. WILLIAMS,
Assistant Account Officer.

ANNUAL FORM No. 82.

Forest Department, Madras Presidency.

Revenue received and outstandings on account of revenue during 1924-25.

District.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the department at end of year.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
First Circle.						
Direction	Timber and other forest produce.	..	81 0 0	81 0 0	81 0 0	..
Ganjām	Do.	1,921 10 9	2,39,957 3 10	2,41,878 14 7	2,35,775 0 0	6,103 14 7
Vizagapatam	Do.	4,290 8 0	49,687 8 0	53,978 0 0	51,668 0 0	2,310 0 0
Gōdāvari, Upper	Do.	4,160 13 0	84,756 0 1	88,916 13 1	87,072 0 0	1,844 13 1
Do. Lower	Do.	5,487 4 0	2,19,811 14 0	2,25,299 2 0	2,22,994 0 0	2,305 2 0
Guntūr	Do. (a)	15,045 7 0	2,82,925 0 0	2,97,973 7 0	2,65,344 0 0	32,629 7 0
Nellore	Do. (b)	4,589 5 7	2,29,692 12 9	2,34,282 2 4	2,07,026 0 0	27,256 2 4
	Total ..	35,495 0 4	11,06,914 6 8	11,42,409 7 0	10,69,960 0 0 (c)— 508 0 0	72,449 7 0
Second Circle.						
Bellary	Timber and other produce.	34,946 15 3	90,865 1 9	1,25,812 1 0	1,07,094 0 0	(d) 18,718 1 0
Anantapur	Do.	* 438 12 0	1,98,737 0 2	1,99,175 12 2	1,22,873 0 0	(e) 76 302 12 2
Kurnool, East	Do.	180 1 8	79,696 2 4	79,876 4 0	76,810 0 0	(f) 3,066 4 0
Do. South	Do.	109 0 0	1,36,854 6 1	1,36,963 6 1	1,36,387 0 0	576 6 1
Do. West	Do.	12,948 12 4	1,66,125 15 8	1,79,074 12 0	1,72,295 0 0	(g) 6,779 12 0
Cuddapah, North	Do.	9,633 6 0	63,190 3 0	72,823 9 0	63,282 0 0	(h) 9,541 9 0
Do. South	Do.	13,364 2 7	54,169 9 5	67,533 12 0	46,335 0 0	(i) 21,198 12 0
Do. West	Do.	4,339 8 0	81,773 0 0	86,112 8 0	78,154 0 0	(j) 7,958 8 0
Chittoor	Do.	5,784 12 4	1,11,476 3 8	1,17,261 0 0	1,16,791 0 0	470 0 0
Direction	Do.	..	163 0 0	163 0 0	163 0 0	..
	Total ..	81,745 6 2	9,83,050 10 1	10,64,796 0 3	9,20,184 0 0	† 1,44,612 0 3

Fourth Circle.						
Direction	Timber and other forest produce.	..	6,656 0 0	6,656 0 0	6,656 0 0	..
Vellore, North	Do.	18,815 11 4	92,701 5 5	1,11,517 0 9	1,10,487 0 0 807 6 0 ‡	222 10 9
Chingleput	Do.	3,902 1 0	50,350 15 10	54,253 0 10	51,117 0 0	3,136 0 10
Vellore, South	Do.	1,490 5 6	2,16,035 6 10	2,17,525 12 4	2,10,400 0 0	7,125 12 4
Do. West	Do.	1,136 12 4	1,39,357 14 6	1,40,494 10 10	1,39,980 0 0 480 8 0 ‡	28 2 10
Salem, East	Do.	935 5 9	1,44,329 10 3	1,45,265 0 0	1,43,080 0 0 80 0 0 ‡	2,105 0 0
Do. North	Do.	12,902 0 0	3,23,295 8 0	3,36,197 8 0	3,35,113 0 0	1,084 8 0
Do. Central	Do.	3,823 12 4	1,22,514 6 5	1,26,338 2 9	1,24,041 0 0 224 0 0	2,073 2 9
Do. South	Do.	2,039 0 6	1,83,048 12 0	1,85,087 12 6	1,82,894 0 0 835 8 6 ‡	1,358 4 0
Tanjore	Do.	..	13,426 0 0	13,426 0 0	13,426 0 0	..
	Total ..	45,045 0 9	12,91,715 15 3	13,36,761 0 0	13,17,194 0 0 2,433 6 6 ‡	17,133 9 6

Note for First Circle.

REMARKS—

Amount due within 1924-25.

RS.	A.	P.	RS.	A.	P.
6,103	14	7	10,994	0	0
2,310	0	0	1,230	3	4
1,842	10	1			
1,530	12	0	24,011	8	0

(*a*) Includes Rs. 613-3-0 of the late Kistna division. (*b*) Correct figure.
(*c*) Refunds made at treasuries.

Note for Second Circle.

(*d*) Out of this Rs. 17,282-1-0 is due in the year 1925-26.
(*e*) Do. Rs. 76,125-4-0 is due in 1925-26.
(*f*) Do. Rs. 2,144-8-0 is due in 1925-26.
(*g*) Do. Rs. 3,207 is due in 1925-26 and the rest is covered by E.M.D.
(*h*) Do. Rs. 7,155-8-0 is due in 1925-26.
(*i*) Do. Rs. 13,511-6-0 is due in the year 1925-26.
(*j*) Do. Rs. 7,625-4-0 is due in 1925-26.

NOTE.—* Revised figure. The difference of Rs. 102 between the closing balance of the previous year and the opening balance of this year is due to the realization of this amount having been erroneously credited to Law and Justice last year instead of to Forests.

† Out of this a sum of Rs. 1,27,009 is due in 1925-26.

Note for Fourth Circle.—‡ Amount written off or deleted.

Revenue received and outstandings on account of revenue during 1924-25—*cont.*

District.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the department at end of year.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Fifth Circle.						
Direction	Timber and other produce.	..	274 11 6	274 11 6	274 11 6	..
Kollegal	Do.	2,252 2 5	1,52,201 12 9	1,54,453 15 2	1,51,822 12 9 (a) 365 10 5	2,265 8 0
Coimbatore, North	Do.	27,066 1 6	4,02,952 1 2 (b) 39,106 5 0	4,69,124 7 8	4,43,081 14 4	26,042 9 4
Do. South	Do.	50,512 1 4	(d) 2,02,070 3 5	2,53,482 4 9	2,15,515 12 3 (a) 325 2 6	37,641 6 0
Madura	Do.	22,774 1 11	1,55,857 5 4	1,78,631 7 3	1,34,599 14 0 (a) 16,330 4 0	27,701 5 3
Tinnevelly	Do.	6,826 2 0	2,18,079 1 6	2,24,905 3 6	2,23,781 11 0 (c) 877 0 0	246 8 6
Sixth Circle.	Total ..	1,09,430 9 2	11,71,441 8 8	12,80,872 1 10	11,86,974 12 9	93,897 5 1
Mangalore, North	Timber and other produce, etc.	10,075 4 4	1,43,237 12 9	1,53,313 1 1	1,43,846 0 0	9,467 1 1
Do. South	Do.	5,937 3 9	1,21,703 12 8	1,27,641 0 5	1,21,543 0 0 (a) 33 3 4	6,064 13 1
Wynaad	Do.	56,527 7 0	1,65,732 4 6	2,22,259 11 6	1,59,315 0 0 (a) 11,279 0 4	51,665 11 2
Nilambur	Do.	26,582 0 10	2,98,398 7 5	3,24,980 8 3	3,01,798 0 0 (a) 9,034 9 9	14,147 14 6
The Nilgiris	Do.	21,785 4 9	1,35,687 7 4	1,57,472 12 1	1,49,938 0 0 (a) 3,907 0 8	3,627 11 5
Palghat	Do.	1,303 1 2	88,533 1 0	89,836 2 2	89,592 0 0	244 2 2
Direction	Do.	..	5 0 0	5 0 0	5 0 0	..
	Total ..	1,22,210 5 10	9,53,297 13 8	10,75,508 3 6	9,66,037 0 0 (a) 24,253 14 1	* 85,217 5 5
Forest Research Division	Timber and other produce.	..	4 0 0	4 0 0	4 0 0	..
	Grand Total ..	1,22,210 5 10	9,53,301 13 8	10,75,512 13 6	9,66,041 0 0 (a) 24,253 14 1	85,217 5
Parlakimedi Maliahs	Timber and other produce.	..	42,858 15 0	42,858 15 0	35,358 15 0	7,500 0 0
Exploitation Division	Do.	21,618 12 1	13,943 0 2	35,561 12 3	28,696 14 11	6,864 13 4
Grand Total, Presidency	Do.	4,15,545 2 4	55,63,226 5 6	59,78,771 7 10	55,51,096 15 3	4,27,674 8 7

Note for Fifth Circle. (a) Written off or eliminated from the accounts on account of erroneous demand. (b) Revenue of 1923-24 adjusted in 1924-25 accounts. (c) Realized in fourth circle. (d) Excludes Rs. 17-9-3 pertaining to the sixth circle.

Note.—Of the total outstandings of Rs. 93,897-5-1, the amount actually due on or before 31st March 1925 was Rs. 29,777-7-0.

Note for Sixth Circle. (a) Amount written off or removed from demand owing to cancellation of sales.

* Out of Rs. 85,217-5-5, amount due on or before 31st March 1925 was Rs. 65,837-3-9.

Annual Form No. 83.

Forest Department, Madras Presidency.

Financial results for the year 1924-25

District.	Timber and other produce removed from the forests by Government agency.		Other revenue.		Formation, protection and improvement of forests.	Total.	
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.
First Circle.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ganjam ..	95,396	92,221	93,876	76,262	27,662	1,89,272 + 46,615	1,96,145 + 25,959
Vizagapatam ..	1,098	1,544	50,733	41,060	6,617	51,831	49,221
Godavari, Upper ..	40,561	31,699	46,622	57,642	19,818	87,183	1,09,159
Do. Lower ..	408	10,079	2,29,374	98,273	10,303	2,29,782	1,18,655
Guntur	141	939	2,66,095	1,04,240	11,762	2,66,236	1,16,941
Nellore	26,875	11,282	1,81,206	90,711	5,727	2,08,081	1,07,720
Total ..	1,64,479	1,47,764	8,67,906	4,68,188	81,889	10,32,385 (*a*) + 46,615 (*b*) — 9,548	(*c*) 6,97,841 (*d*)+25,959
Second Circle.							
Bellary	386	323	1,06,573	45,464	15,079	1,06,959	60,866
Anantapur	19	100	1,22,427	57,762	19,043	1,22,446	76,905
Kurnool, East ..	15,884	7,807	60,857	67,372	27,556	76,741	1,02,735
Do. South ..	30,117	12,890	1,05,931	80,287	31,779	1,36,048	1,24,956
Do. West ..	65,044	21,005	1,01,769	1,11,319	38,954	1,66,813	1,71,278
Cuddapah, North ..	581	174	62,666	52,106	19,165	63,247	71,445
Do. South ..	6,481	1,710	39,858	58,508	21,487	46,339	81,705
Do. West ..	1,604	413	76,253	56,308	21,515	77,857	78,236
Chittoor	539	601	1,15,443	86,495	32,257	1,15,982	1,19,353
Total ..	1,20,655	45,023	7,91,777	6,15,621	2,26,835	9,12,432	8,87,479
						(*e*) — 2,623	
						9,09,809	
Fourth Circle.							
Chingleput	48	746	51,071	25,523	32,009	51,119	58,278
Vellore, North ..	499	1,458	1,09,930	45,346	16,403	1,10,489	63,207
Do. South ..	101,805	31,830	1,08,597	12,151	47,950	2,10,402	91,931
Do. West ..	81,504	28,787	58,478	11,616	45,869	1,39,982	86,272
Salem, East ..	11,639	7,522	1,31,443	34,779	31,095	1,43,082	73,396
Do. North ..	288,700	65,895	45,715	11,319	23,645	3,34,415	1,00,859
Do. Central ..	17,195	14,143	1,06,848	28,701	29,786	1,24,043	72,630
Do. South ..	40,249	21,788	1,42,565	29,550	35,018	1,82,814	86,356
Tanjore ..	..	..	13,426	638	1,060	13,426	1,698
Total ..	5,41,639	1,72,169	7,68,133	1,99,623	2,62,835	13,09,772 (*f*) + 6,640 (*b*) — 18,903	6,34,627
						12,97,509	
Fifth Circle.							
Kollegal ..	90,767	11,811	60,554	58,671	6,043	1,51,321	76,525
Coimbatore, North ..	3,10,489	30,362	1,31,579	72,786	13,527	4,42,068	1,16,675
Do. South ..	1,20,971	1,91,783	93,381	34,885	42,570	2,14,352	2,69,238
Madura ..	9,970	7,985	1,23,445	79,986	31,294	1,33,415	1,19,265
Tinnevelly ..	1,049	2,423	2,22,691	81,126	43,777	2,23,740	1,27,326
Total ..	5,38,246	2,44,364	6,31,650	3,27,454	1,37,211	11,64,896	7,09,029

(*a*) Recoveries of investments on Government commercial undertakings.
(*b*) Refunds.
(*c*) Includes Rs. 14,436 being establishment charges of the Direction offices of old Second and Third circles apportioned to Guntur and Nellore districts by the Conservator, Second Circle.
(*d*) Investments on Government commercial undertakings.
(*e*) Refunds which cannot be distributed divisionwar.
(*f*) Sandalwood revenue realized for other circles.

Financial results for the year 1924–25—*cont.*

District.	Timber and other produce removed from the forests by Government agency.		Other revenue.		Formation, protection and improvement of forests.	Total.	
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.
Sixth Circle.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Mangalore, North ..	60,974	35,383	82,873	47,157	21,676	1,43,847	1,04,216
Do. South ..	81,110	44,884	40,434	35,564	31,895	1,21,544	1,12,343
Wynaad	1,37,806	1,57,500	21,510	14,533	55,630	1,59,316	2,27,663
Nilambur	2,89,793	1,96,085	12,006	22,332	97,383	3,01,799	(*e*) 3,15,800
The Nilgiris	1,05,178	75,567	44,761	43,268	49,118	1,49,939	1,67,953
Palghat	74	1,056	89,518	46,285	22,310	89,592	69,651
Inspector of Livestock	..	8,781	..	..	..	..	(*a*) 8,781
Total ..	6,74,935	5,19,256	2,91,102	2,09,139	2,78,012	9,66,037	10,06,407
Forest research ..	..	..	4	..	26,128	4	(*b*) 26,128
Grand total ..	6,74,935	5,19,256	2,91,106	2,09,139	3,04,140	9,66,041	(*d*) 10,32,535
				Deduct refunds		(*c*) 4,352	
						9,61,689	
Engineering Branch.							
Forest Engineer, Madras.	..	..	851	1,57,165	..	851	1,57,165
Forest Engineer, Olavakkot.	26,006	3,29,868	8,781	84,976	2,881	34,787	4,17,725

(*a*) The expenditure is debitable partly to Fifth Circle and partly to the Exploitation Division at Olavakkot.

(*b*) The expenditure in this division is debitable to other circles also.

(*c*) Excludes Rs. 342 under refunds relating to the Exploitation Division at Olavakot.

(*d*) Excludes the following :—
Rs. 10 664 leave pay of Mr. Wood, Conservator, Fifth Circle,
Rs. 385 expenditure on Madras Forest College buildings in the Nilgiris, and
Rs. 16,613 under B.I. (a) relating to the Exploitation Division at Olavakot.
Includes expenditure on account of logging branch incurred in this circle.

(*e*) Includes full expenditure on Vernacular Training School Rs. 7,368.
Direction charges for the Engineering Branch have been apportioned as follows :—
Twenty per cent Forest Engineer, Madras.
Thirty-five per cent—Forest Engineer, Olavakkot
Twenty-five per cent—Logging Engineer.
Twenty per cent—Forest Utilization Officer.

Financial results for the year 1924-25—*cont.*

District.	Timber and other produce removed from the forests by Government agency.		Other revenue.		Formation, protection and improvement of forests.	Total.	
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.
Forest Utilization Officer.	..	39,413	..	..	..	..	39,413
Logging Engineer ..	..	40,748	..	..	..	..	40,748
Total ..	26,006	4,10,029	9,632	2,42,141	2,881	35,638	6,55,051
Grand Total, Presidency.	20,60,960	15,38,605	33,60,200	20,62,166	9,89,663	54,21,160 (*a*)—35,426 (*b*) 4 (*c*) 6,640 (*d*) 46,615 54,38,998 .. .. .. (*i*) 76,413 .. .. .. (*m*) 54,475 55,[illegible]9,681	45,90,434 (*b*) 26,128 (*e*) 25,969 .. 46,42,521 (*f*) 1,07,570 (*g*) 6,059 (*h*) 31,611 (*i*) 90,102 (*j*) 18,000 (*k*) 98,110 (*l*) 35,054 (*m*) 88,769 51,17,796

(*a*) Refunds.
(*b*) Forest Research Officer.
(*c*) Receipts on account of other circles.
(*d*) Recoveries from investments on commercial undertakings.
(*e*) Investment on commercial undertakings.
(*f*) General Direction.
(*g*) Loss on Government commercial undertakings.
(*h*) Forest Panchayat Officer.
(*i*) The Madras Forest College.
(*j*) Passage money to England.
(*k*) Expenditure in England.
(*l*) Loss or gain by exchange transactions.
(*m*) Added as per Accountant-General's figures. Includes Rs. 35,359 and Rs. 38,359 for the Parlakimedi Maliahs, and for other Agency tracts for which figures are not available.

8. (*a*) General Direction—

	Rs.
Non-voted—	
Chief Conservator	31,637
Passage pay	600
Rates and taxes	2,045
Voted—	
Gazetted officer	5,712
Establishment	19,900
Voted—*cont.*	
Travelling allowance	7,570
Contingencies—	
Service postage and telegrams.	2,000
Other contract items	962
Non-contract items	37,144
Total, General Direction ..	1,07,570

ANNUAL FORM No. 84.

PART I.

Forest Department, Madras Presidency.

Statement of elephants and other live-stock during 1924-25.

District.	On hand at the commencement of the year.		Number received during the year.	Number disposed of during the year.	On hand at the end of the year.		Total expenditure on maintenance during the year.
	Number.	Value.			Number.	Value.	
(1) ELEPHANTS.		Rs.				Rs.	Rs. A. P
First Circle.							
Godavari, Upper..	2	3,900	..	1	1	3,000	1,173 3 2
Second Circle							
Kurnool, West ..	2	5,000	..	..	2	5,000	2,148 7 6
Third Circle—Nil.							
Fourth Circle—Nil.							
Fifth Circle.							
Coimbatore, South.	17	58,800	8	3	22	77,300	18,937 0 0
Sixth Circle.							
Mangalore, North.	3	11,500	2	1	4	13,000	4,331 4 2
Do. South	3	12,500	1	..	4	17,500	3,8.0 14 3
Wynad	26	91,300	6	12	20	63,400	16,629 0 11
Nilambur	27	96,050	20	11	36	1,11,300	30,949 11 1
The Nilgiris ..	24	63,300	16	24	16	48,000	9,737 5 8
Total ..	83	2,74,650	45	48	80	2,53,200	65,458 4 1
Grand Total—Elephants—Presidency.	104	3,42,350	53	52	105	3,38,500	87,716 14 9
(2) OTHER LIVESTOCK.							
First Circle.							
Ganjam	19	818	..	11	8	478	1,192 11 6
Second Circle							
Kurnool, West ..	Bulls. 5	525	..	3	2	150	261 0 3
Do. South ..	Bulls. 3	50	..	3	..	..	..
Chittoor	2 buffaloes.	70	1	1	2	75	..
Do.	1 bullock.	59	..	..	1	59	29 2 6
Total ..	11	704	1	7	5	284	290 2 9
Third Circle—Nil.							

Statement of elephants and other live-stock during 1924-25—*cont.*

District.	On hand at the commencement of the year		Number received during the year.	Number disposed of during the year.	On hand at the end of the year.		Total expenditure on maintenance during the year.
	Number.	Value.			Number.	Value.	
(2) Other Live-stock—*cont.*		Rs.				Rs.	Rs. A. P.
Fourth Circle.							
Chingleput ..	1 he-buffaloe.	35	1	1	1	40	17 10 0
Fifth Circle							
Coimbatore, South.	100	9,671	3	8	95	9,291	21,537 0 0
Sixth Circle.							
Mangalore, South.	4	338	..	4	..	..	148 5 0
Wynad	17	2,140	..	4	13	1,955	5,545 5 5
Nilambur ..	34	2,569	..	4	30	1,306	7,206 15 2
The Nilgiris ..	12	1,397	..	4	8	645	4,244 4 1
Total ..	67	6,444	..	16	51	3,906	17,144 13 8
Exploitation division.	26	1,602	..	16	10	510	6,233 7 0
Grand Total—Other Live-stock —Presidency.	224	19,274	5	59	170	14,509	56,415 12 11

Part II.

Forest Department, Madras Presidency.

Statement of elephants gone off the list during the year 1924-25.

District.	Names.	When purchased or otherwise obtained by Government.	Age.	How disposed of.
		First Circle.	yrs.	
Godavari, Upper.	Sarat Pari ..	Purchased in 1891 in Sompur fair.	..	Given away as a gift to zamindar M.R.Ry. Mothey Gangaraju Garu of Ellore. Written off the accounts in Conservator's Mis. Sanction Order No. 12/24, dated 15th April 1924.
..		*Second Circle*—Nil.		
		Third Circle—Nil.		
		Fourth Circle—Nil.		
		Fifth Circle.		
Coimbatore, South.	Padmini	Transferred from Nilgiris on 24th June 1922.	52	Died on 26th May 1924.
	Parukutty (calf)..	Captured on 29th December 1923	5	Do. 27th October 1924.
	Rukmani	Captured on 23rd June 1924 ..	4	Do. 19th December 1924.

Statement of elephants gone off the list during the year 1924-25—*cont.*

District.	Names.	When purchased or otherwise obtained by Government.	Age.	How disposed of.
		Sixth Circle.	YRS.	
Mangalore, North.	Peri	Captured on 11th April 1889 ..	59	Transferred to South Mangalore division.
	Narayana ..	Do. 13th March 1919 ..	24	Transferred to Nilambur.
	Chathravathy ..	Do. 26th February 1923.	21	Do.
	Valmiki ..	Do. 12th May 1914 ..	24	Do.
	Moolabakshi ..	Do. 6th April 1911 ..	23	Do.
	Drona	Do. 2nd May 1914 ..	21	Died on 6th November 1924.
	Balakrishna ..	Do. 19th January 1924..	3	Transferred to the Nilgiris.
Wynad.	Leelavathy ..	Do. 5th March 1924 ..	6	Do.
	Thrasi	Do. 6th April 1924 ..	2	Do.
	Ady	Do. 15th May 1924 ..	12	Do.
	Emperor ..	Do. 6th March 1909 ..	27	Transferred to South Mangalore.
	Gautama ..	Do. 29th October 1924 ..	20	Died on 12th November 1924.
	Vimala	Do. 5th March 1924 ..	35	Do. 16th May 1924.
	Moideenkhan ..	Do. 3rd January 1896 ..	40	Do. 24th January 1925.
	Looly	Do. 25th July 1907 ..	21	Transferred to South Coimbatore.
	Bhavani ..	Do 9th April 1913 ..	26	Do.
	Savitri	Do. 14th May 1912 ..	46	Do.
	Bhima	Do. 21st November 1919	22	Died on 16th October 1924.
Nilambur.	Thittykutty ..	Do. 23rd October 1923 ..	4	Transferred to The Nilgiris.
	Nellikutha ..	Do. 23rd December 1923.	8	Do.
	Balamony ..	Do. 2nd February 1924.	11	Do.
	Janu	Do. 5th April 1924 ..	2	Died on 22nd November 1924.
	Maharajan ..	Do. 1886..	49	Transferred to The Nilgiris.
	Srinivasan ..	Do. 10th February 1918.	24	Do.
	Balakrishna ..	Do. 19th January 1924..	3	Sold.
	Leelavathy ..	Do. 5th March 1924 ..	6	Do.
	Thittykutty ..	Do. 23rd October 1923..	4	Do.
	Parvathi.. ..	Do 18th January 1925 .	30	Died on 22nd January 1925.
	Ganapathi ..	Do. 18th January 1925..	9*	Sold.
	Rama	Do. 19th January 1925..	6	Do.
	Lakshmana	Do. 19th January 1925..	4	Do.
	Kaveri	Do. 20th January 1925..	5	Do.
	Kalyani	Do. 20th January 1925..	4	Do.
	Rathi	Do. 21st January 1925..	1½	Do.
	Radha	Do. 29th December 1923.	13	Died on 29th August 1924.
The Nilgiris.	Gopalan	Do. 29th December 1923	2½	Sold.
	Ganapathi ..	Born on 3rd February 1923 ..	1 2*	Died on 1st May 1924.
	Janaki	Do. 19th January 1923 ..	2	Sold.
	Chandra	Do. 16th June 1923	1½	Do.
	Kamatchi ..	Captured on 11th April 1914 ..	28	Transferred to Nilambur.
	Littlemille ..	Do. 25th May 1915 ..	17	Do.
	Drowpadi ..	Do. 11th April 1914 ..	40	Died on 25th June 1924.
	Kali	Do. 12th January 1919..	29	Transferred to Nilambur.
	Krishna	Do. 30th March 1916 ..	28	Do.
	Togo	Do. 19th June 1905 ..	22	Do.
	Madhavan ..	Do. 12th March 1906 ..	22	Do.
	Tyno	Do. 1st March 1917 ..	22	Do.
	Thrasi	Do. 6th April 1924 ..	2	Died on 22nd December 1924.

* Months.

ANNUAL FORM No. 85.

Forest Department, Madras Presidency.

Abstract showing the value of stores, tools and plant for 1924–25.

ANNUAL FORM No. 85.

Forest Department, Madras Presidency.

Abstract showing the value of stores, tools and plant for 1924-25.

District.	Buildings.				Stores.				Total.				Difference in value.	
	On hand at the commencement of the year.		On hand at the end of the year.		On hand at the commencement of the year.		On hand at the end of the year.		On hand at the commencement of the year.		On hand at the end of the year.		In favour of the year.	Against the year.
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
First Circle.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Direction	1	400	1	400	282	4,000	287	4,170	283	4,400	288	4,570	170	..
Ganjam	100	48,034	103	59,252	8,001	21,686	6,739	20,372	8,101	69,720	6,842	79,624	9,904	..
Vizagapatam	56	11,719	54	11,838	1,691	4,831	1,611	5,108	1,747	16,550	1,665	16,946	396	..
Godavari, Upper	131	44,882	114	45,159	3,587	16,888	6,127	16,732	3,718	61,770	6,241	61,891	121	..
Do. Lower ..	154	45,286	282	96,842	7,559	6,475	8,153	11,581	7,713	51,761	8,435	1,08,423	45,755	..
	* 33	5,798	..	..	* 1,582	15,558	..	..	* 1,615	21,356	..	..		
Guntur	30	19,520	47	27,077	5,975	11,031	6,285	13,923	6,005	30,551	6,332	41,000		
Nellore	55	32,903	60	31,929	44,783	35,376	41 193	31,775	44,778	68,279	41,255	63,704	..	4,575
Total ..	560	2,08,542	661	2,72,497	73,400	1,15,845	70,395	1,03,661	73,960	3,24,387	71,056	3,76,158	51,771	..
Second Circle.														
Direction	..	..	..	..	250	6,168	277	6,134	250	6,168	277	6,134	..	34
Bellary	24	30,919	25	33,185	3,611	14,872	3,617	14,730	3,635	45,791	3,642	47,915	2,124	..
Anantapur	30	47,559	29	46,159	2,806	5,752	2,678	5.776	2,836	53,311	2,708	51,935	..	1,376
Kurnool, East	71	78,478	76	78,578	4,5 2	12,628	4 597	12,910	4,633	91,106	4,673	91,488	382	..
Do. South	73	43,752	67	48,119	2,382	10,663	2,112	9,230	2,455	54,415	2,179	57,349	2,934	..
Do. West	64	98,753	64	1,00,492	5,191	23,666	5,475	24,430	5,255	1,22,419	5,539	1,24,922	2,503	..
Cuddapah, North	74	22,434	66	24,388	2,662	8,472	2,810	6,477	2,736	30,906	2,876	30,865	..	41
Do. South	66	68,301	68	68,339	2,518	11,271	2,529	10,225	2,584	79,572	2,597	78,564	..	1,008
Do. West	33	15,842	29	15,820	3,048	6,231	2,794	5,959	3,081	22,073	2,823	21,579	..	494
Chittoor	47	35,982	49	39,375	2,985	14,036	5,766	17,921	3,032	50.018	5.814	57,296	7,278	..
Total ..	482	4,42,020	473	4,54,255	30,015	1,13,759	32,655	1,13,792	30,497	5,55,779	33,128	5,68,047	12,268	..

Fourth Circle.														
ction	..	..	..	..	229	2,833	185	2,218	229	2,853	185	2,218	..	615
ore, North	38	23,847	37	23,100	2,476	5,258	2,398	6,894	2,514	29,205	2,435	29,994	789	..
o. South	58	46,233	48	52,688	2,729	7,134	2,991	8,331	2,787	53,367	3,039	61,019	7,652	..
o. West	41	31,698	43	35,763	3,551	6,390	3,738	6,864	3,592	38,588	3,781	42,647	4,039	..
ngleput	22	30,926	18	30,676	2,389	4,807	2,248	4,690	2,411	35,733	2,266	35 366	..	367
lem, East	59	28,091	59	26,765	3,828	13,856	3,426	11,983	3,887	41,947	3,485	38,748	..	3,199
Do. North	56	34,455	54	29,312	2,599	24,394	2,670	20,451	2,655	58,849	2,724	49,763	..	9,086
Do. Central	65	47,349	58	40,821	2,546	11,764	2,411	11,470	2,611	59,113	2,469	52,291	..	6,822
Do. South	61	36,217	64	35,714	5,254	9,908	4,755	9,183	5,315	46,125	4,819	44,897	..	1,228
ernacular Training School.	..	..	..	..	545	3,650	540	2,868	548	3,650	540	2,868	..	782
Total ..	400	2,78,816	381	2,74,839	26,149	90,594	25,362	84,952	26,549	3,69,410	25,743	3,59,791	..	9,619
Fifth Circle.														
Direction	1	48	1	45	300	3,169	265	3,154	301	3,217	266	3,199	..	18
Kollegal	47	46,329	47	46,007	49,642	6,141	2,135	6,498	49,689	52,470	2,182	52,505	35	..
Coimbatore, North	88	1,01,383	88	1,01,385	1,429	9,502	1,922	9,560	1,517	1 10,885	2,010	1,10,943	58	..
Do. South ..	79	81,955	78	77,115	3,329	25,658	4,365	23,276	3,408	1,07,613	4,443	1 00,391		7,222
Madura	123	1,03,545	123	1,14,377	1,926	4,414	2,963	2,759	2,019	1,07,959	3,086	1,17,136	9,177	..
Tinnevelly	116	53,468	129	77,000	2,103	6,966	2,746	7,738	2,219	60,434	2,875	84,738	24.304	..
Vernacular Training School.	..	..	..	..	481	460	603	714	481	460	6 3	714	254	..
Extra Assistant Conservator in charge of Development Scheme.	..	..	..	..	167	1,372	217	1,967	167	1,372	217	1,967	595	..
Total ..	454	3,86,728	466	4,15,927	59,377	57,682	15,216	55,666	59,831	4,44,410	15 682	4,71,593	27,183	..
Sixth Circle.														
Direction	..	..	..	..	219	4,816	217	4,361	219	4.816	217	4,361	..	455
Mangalore, North	(a) 62	38,138	68	45,915	(a) 925	(a) 6,365	943	7,316	987	44,603	1,011	53,231	8,728	..
Do. South	40	(a)34,263	39	43,488	1,092	6,582	1,293	7,089	1,132	40,845	1,3 2	51,077	10,232	..
Wynaad	94	86,449	105	1,03,418	6,146	12,708	3,383	13,871	6,240	99,157	3,488	1,17,289	18,132	..
Nilambur	28	55.446	31	56,669	1,126	11,294	1,432	19,892	1,154	66,740	1,463	76,561	9,821	
The Nilgiris	76	60,291	78	62,161	2,365	12,739	2,076	11,205	2,441	73,030	2,154	73,366	336	..
Palghat	38	20,277	39	31,083	905	7,639	979	7,831	941	27,916	1,018	38,914	10,998	..
Total ..	338	2,94,864	360	3,42,734	12,776	62,143	10,323	72,065	13,114	3,57,007	10,683	4,14,799	57,792	..
Parlakimedi Maliahs ..	73	393	75	443	292	1,262	291	1,261	365	1,655	366	1,704	49	..
The Forest Research office ..	..	..	..	..	183	2,708	215	3,120	183	2,708	215	3,120	412	..
Exploitation Division ..	..	..	..	..	920	59,743	904	74,121	920	59,743	904	74,121	14,378	..
Grand Total, Presidency ..	2,307	1,611,363	2,416	17,60,695	2,03,112	5,03,736	1,55,361	5,08,638	2,05,419	21,15,099	1,57,777	22,69,333	1,54,234	..

* Represents figures of old Kistna division now apportioned between Guntur and Lower Godavari.

(a) Opening balance corrected with reference to the revised figures advised by the District Forest Officers.

Statement showing sanctions for works exceeding Rs. 5,000 accorded under the powers delegated in G.O. No. 1755, Development, dated 17th September 1921—1924-25.

Name of work.	Total cost.	Expenditure incurred in the year.	Remarks showing how the cost was met—portion met from the budget allotment—portion met from other sources.
	Rs.	Rs.	
I, II, IV and V Circles—Nil.			
VI Circle.			
Assistant Ranger's quarters, Pulliyil, Amarampalam range, Nilambur division.	5,200	4,568	Met from budget allotment.
Reconstruction of the District Forest Office, Nilambur.	6,094	6 063 (Rs. 769 spent in 1923-24)	
Exploitation Ranger's quarters, Chedleth Wynaad division.	5,100	5,109 (excess expenditure).	
Ranger's quarters at Kuppadi, Sultan's Battery range, Wynaad division.	5,100	5,098.	

ADMINISTRATION REPORT

OF THE

FOREST DEPARTMENT

OF THE

MADRAS PRESIDENCY

FOR THE

YEAR ENDING 31ST MARCH 1925

VOL. II

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ANNUAL ADMINISTRATION REPORT OF THE FOREST DEPARTMENT

FOR THE

YEAR ENDING 31ST MARCH 1925

FIRST CIRCLE

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

1. ALTERATION IN AREA.

1. *Reserved forests and reserved lands.*—Eleven square miles of reserved land in *Nellore* were transferred to reserved forests. The area on 31st March 1925 including *Nellore* and *Guntur* was 3,984 square miles of reserved forest and 3 square miles of reserved land.

2. FOREST SETTLEMENT.

2. Eleven square miles were notified under section 16 of the Forest Act. This represents the final settlement of Rapur Veligonda reserves in the *Nellore* district whose notification took effect from 15th May 1924 although published at the end of last year.

3. DEMARCATION.

3. *Ganjam.*—Six cairns were constructed on the boundary line of Buduli unreserve proposed for reservation and the western boundary lines of blocks II and IV of Gallery Extension were rectified at a total cost of Rs. 9-13-0. *Upper Godavari.*—About eleven miles of the frontier boundary between the Bastar State and Nugur range was inspected and verified by the District Forest Officer. The western boundary of Peddamidisileru reserved forest was rectified at a cost of Rs. 23. *Lower Godavari.*—Upputeru reserve Block I was demarcated at a cost of Rs. 17 so as to exclude 1,520 acres disforested for purposes of assignment for wet cultivation. Similarly, in *Guntur* a boundary line was demarcated at a cost of Rs. 17-5-3 in Koppukonda Extension I where a portion was disforested. *Nellore.*—About seven miles of boundary of

Rapur Veligonda was demarcated in 1920-21 at a cost of Rs. 43-12-0, but it was brought to account only in the year under report as its notification under section 16 took effect this year. An expenditure of Rs. 29-8-0 was incurred in demarcating lines 12 feet broad around disforested areas in Vovveru and Kandamur reserves. Re-clearing old lines was done free of cost to Government by subordinates everywhere and by the Kanchadars in *Nellore*.

4. Forest Surveys.

4. *Upper Godavari.*—The Survey of India Party traversed the boundary between the Bastar State and the Nugur taluk in order to settle the dispute between the Bastar State and Government. The result of the survey is not yet published. The survey of India Party also verified the Government Trigonometrical Stations in the reserved forests of the Bhadrachalam taluk. *Guntur.*—The Survey of India Party surveyed in detail the Bellamkonda and Venkatayapalem reserves of Sattenapalle range. The Madras Survey Party traversed the boundaries of the mangrove reserves in *Guntur*. Local surveys of areas under working were carried out by the concerned Range Officers in all the divisions.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. Regulation of Management.

5. *Preparation and control of working plans.*—No new working plans were sanctioned. *Ganjam.*—The prescriptions of the Gumsur working plan were carried out. Certain deviations regarding working in the selection working circle were sanctioned by the Chief Conservator. The Mohiri forests of the Berhampur range were worked under Mr. Wimbush's working scheme. *Vizagapatam.*—In the working plan for Sarvasidhi range the simple-coppice system was introduced in place of the coppice with standards system. In the Yellamanchilli grazing working circle, sheep and buffaloes which were not hitherto admitted to grazing are now permitted to graze permanently up to the possibility fixed in the scheme. Both the above deviations were sanctioned by the Chief Conservator. *Godavari Upper.*—Revised schemes for working bamboo coupes in the division and the Yepi areas in the Bhadrachalam range were submitted to the Conservator for approval. *Godavari Lower.*—A simple scheme for working the teak areas in Papikonda reserve has yet to be drawn up. This is pending decision as to the means of extraction to be employed for transporting the timber. This question is awaiting decision by the Forest Engineer. A simple scheme for working the bamboo forests in Rajahmundry, Peddapur and

Gokavaram ranges on a four-year rotation (instead of a three-year rotation hitherto) was prepared and has since been approved by the Conservator. It will be brought into force from 1st July 1925. A scheme for forming casuarina plantation in the Karavaka portion of the Kandikuppa reserve was under preparation. *Guntur.*—Simple schemes for working the forests of Vinukonda, Sattenapalle and Palnad ranges were prepared and pending submission to the Conservator. The Repalle mangrove working plan was under revision. The sanctioned working plan for the Kondapalli reserve was revised under Mr. Barry's orders. Working under the working plan for the reserves in the Bezwada taluk is practically in abeyance owing to transfer of areas to panchayat management. The working plan for the mangrove reserve of the old Bandar range has become out of date owing to the transfer of several reserves to panchayat management. The plan for the remaining reserves is under revision. The Guttikonda and Bollapalle working plan was practically suspended for want of demand for fuel coupes. *Nellore.*—The working plan for Kavali range was completed and has since been approved by the Conservator. Sriharikota working plan was under preparation and work thereon was much handicapped by changes of 5 Range Officers within one year. A tending working plan for the Red Sanders area in the district was pending preparation.

The prescriptions of the sanctioned working plans were generally adhered to. For want of demand 7 fuel coupes and 4 bamboo coupes were left unsold in *Lower Godavari.* In *Nellore* several felling series were in arrears either for want of demand or poor growth therein; and after investigation steps were taken for the elimination of these areas from the working plan returns.

2. Communications and Buildings.

6. No new work costing more than Rs. 5,000 was sanctioned.

7. *Roads and bridges.*—Rs. 2,882 were spent on new works, and Rs. 3,965 on repairs. Little progress was made under new works owing to financial stringency. The existing roads were in most cases kept in repair. The important new works carried out were: *Ganjam.*—Completion of two culverts on Tilasingi-Tarasingi road and a bridge across Odangi nala, repairs of a capital nature to Kukuluba valley road, acquisition of land for Mohiriguda-Kondalabondho road, Rs. 232. *Vizagapatam.*—Eight chains of Russellpeta-Donabhai road, Rs. 159. *Upper Godavari.*—Six furlongs of earthern road from Polipaka to Tatlanka, Rs. 162. *Lower Godavari.*—Compensation for temporary occupation of land for Yagaram-Ramasingavaram road, Rs. 185. *Guntur.*—One bridle-path from the inspection shed

in Pulusunutala hill to the well at its foot in Palnad range and another from that place to Dampalli rest-house, continuation of the bridle-path in Kandlangunta Extension I.

8. *Buildings.*—Rs. 5,572 were spent on new works and Rs. 13,829 on repairs. The latter figure includes cost of temporary establishment employed, Rs. 3,976. The important buildings constructed were : *Ganjam.*—Completion of outhouses and stables to the rest-house at Tarasingi; five camping sheds in Bontha range, one subordinates' shed at Kaddapada, fence to Bontha Range Officer's and Range clerk's quarters. *Upper Godavari.*—Completion of Forester's quarters at Tummuleru and construction of outhouses to Ranger's quarters at Cherla. *Guntur.*—Subordinates' lines at Ipur (part construction) and improvements to inspection sheds. The Range office building at Bapatla was converted into a rest-house at a cost of Rs. 230. *Nellore.*—Completion of outhouses to Kavili Range Officer's quarters. Wire fence to the Range office building and construction of a latrine to the Range Officer's quarters at Kavali.

9. *Other works—Guntur.*—The important new works were: Two wells in the Bapatla rest-house and Adavuladivi camp-shed. *Nellore.*—Two pot-wells in Sriharikota range for the better sanitation and health of the Government Yanadis working on departmental collection of minor forest produce.

3. Protection of Forests.

(a) *General Protection.*

10. The number of forest offences reported during the year and their classification are compared with those of the preceding year, and the average of the three preceding years in the following statement :—

Cases.	Injury to forests by fire.		Unauthorized felling.		Unauthorized grazing.		Other offences.		Total.		Average for three years ending with 1923-24.
	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	
Cases taken to court.	3	3	622	830	713	724	116	37	1,454	1,594	1,146
Cases compounded.	6	1	2,679	2,953	1,368	1,420	199	320	4,252	4,694	3,972
Cases undetected.	97	86	109	107	1	2	5	1	212	196	274
Total .	106	90	3,410	3,890	2,082	2,146	320	358	5,918	6,484	5,392

New cases of the year.—The figures show an increase under all heads except under "injury by fire". Individual districts

considered, there was increase in the number of offences in *Ganjam* compared with last year, and it was due to vigilance on the part of the protective staff especially in Russellkonda range. *This gave direct results* in much improved prices realized for coupes in the reserves concerned. Credit in this connection is due to Ranger C. G. Krishna. In *Vizagapatam*, the period for the payment of compounding fees was extended from 15 to 30 days resulting in a fall in the number of cases taken to Court. In *Upper Godavari*, there was a considerable fall under "unauthorized fellings" which is attributed to a better comprehension by the people of the revised rules introduced last year for the felling and removal of the classified trees from the unreserves of the Bhadrachalam taluk. There was increase in the number of new cases reported in *Lower Godavari* and *Guntur*, and it is ascribed to the addition of reserves of the late Kistna division.

Cases old and new dealt with during the year.—The percentage of convictions was less than that of last year and was due to the payment of compounding fees after the cases were taken to court. Of the 1,896 cases taken to court, 692 were convicted and 1,204 acquitted. Of the 1,204 acquittals, 1,131 were due to payment of compounding fees in court, 21 were withdrawals (8 were by the District Forest Officer in *Nellore* owing to the death of the accused, or to avoid payment of disproportionately large travelling allowance to official witnesses in trivial cases). Only 52 were acquitted by the Magistrates on demerits, i.e., about 4 per cent. The punishments inflicted by the Magistrates were reported generally adequate.

The usual notice of warning was published in the District Gazette and by beat of tom-tom to the villagers against settling fire to the reserved forests. No other special steps were taken such as suspension of privileges, closure of reserves to grazing, enhancement of grazing fees, and so forth.

The total number of cases compounded was 4,196, and the compounding fees realized Rs. 68,907, or an average of Rs. 16 per case.

11. A reward of Rs. 100 was sanctioned for payment to 1 Forester, 6 Forest Guards, and 2 Watchers and another of Rs. 80 to one Forester, and 5 Forest Guards for detecting big cases under very trying circumstances in Vinukonda range of *Guntur* division. To encourage efficient protection of Kanchas and closed coupes, rewards of Rs. 406 were granted to Kanchadars in *Nellore*.

(b) *Protection from fire.*

12. The areas attempted to be protected and actually protected are shown in Form 72. The area under special protection was

1,013,194 acres and includes the areas in *Guntur* and *Nellore* recently added to this circle. Of this an area of 984,565 acres was successfully protected at a cost of Rs. 15,314. The percentage of failure was only 2.8 per cent and includes fires over $13\frac{3}{4}$ square miles which occurred in Dharakonda and Sanivaram reserves of *Vizagapatam* division, as a direct result of the Fituri operations. The fire season of 1924 may be said to be on the whole more favourable than the previous year's.

The average cost per square mile of special protection attempted was Rs. 9-15-4 against Rs. 11-0-3 of the previous year. The decrease was due to the fact that in *Ganjam* no second burning of fire lines was done in Buguda, Bontha, Russellkonda and Kukuluba ranges and that the fire patrols were employed for 2 months only against 4 months sanctioned. In *Upper Godavari*, early burning was carried out in Nugur and Cherla ranges and in Rekapalli and Marrigura reserves of Pulusumamidi and Lakkavaram ranges. The total area dealt with was 601 square miles, and the area successfully protected was 596 square miles. The cost of the operation including rewards to Koyas and Reddis was Rs. 9 per square mile against Rs. 6-10-0 in the previous year. This year's increase is due only to the payment of reduced rates to the hill men last year, owing to unsatisfactory burning. In *Guntur*, Kondapalli, Kottur and Kondur reserves were under special protection, but under Mr. Wilson's orders early burning was substituted. The system is reported to be not popular as it deprived the people of the dry grass which they would otherwise have for thatching purposes. The District Forest Officer has been told that next year if the people like dry grass the Forest department will willingly let them take it over specified areas and will do no early burning in those areas provided they in return discourage any intentional firing of the forest. In *Nellore*, the modified early burning was continued in the hilly ranges of Kanigiri, Udayagiri and Rapur. This system is described by Mr. Chengappa as follows: 'Here instead of burning the area in patches here and there, at the proper time fires are let along the boundary and compartment lines and allowed to burn 2—300 feet and then put out by beating. If the right time is chosen for this burning, i.e., when the grass is half-dry, the fire tracing operations are far superior to the orthodox system of burning and far cheaper, the lines look clean burnt.' The area attempted to be protected was 149,853 acres and the total cost Rs. 605, i.e., Rs. 2-8-0 per square mile. The result is reported generally satisfactory.

The area under general protection was 1,233,816 acres. The area burnt was 12,795 acres (nearly 20 square miles) or 1 per cent.

The average cost per square mile was Rs. 1-8-0 per square mile attempted.

The Kondhs of Pondakhol were granted rewards at a cost of Rs. 246 for successful protection of the forests from fire. Similarly the Koyas and Reddis in *Upper Godavari* were paid rewards amounting to Rs. 3,887 for successfully protecting the reserves in the whole division.

The number and origin of fires are compared in Appendix A.

The cost per average *acre* of special and of ordinary fire protection in the several divisions is of interest.

		Pies per acre.
Ganjam ...	Special	9·0
	Ordinary	2·0
Vizagapatam ...	Special	3·0
	Ordinary	0·8
Godavari, Upper ...	Special	3·0
	Ordinary	0·8
Godavari, Lower ...	Special	4·0
	Ordinary	1·0
Guntur ...	Special	0 9
	Ordinary	*Nil.*
Nellore ...	Special	0·8
	Ordinary	*Nil*

(c) *Protection from cattle.*

13. 2,667 square miles of reserves were open to grazing against 2,300 square miles in the previous year. The increase is due to the addition of *Guntur* and *Nellore* reserves to the Circle and would have been greater but for the transfer of a large number of reserves in *Guntur* and *Lower Godavari* to panchayats and disforestation of several reserves in *Guntur*. Goats were excluded from all reserves. In *Ganjam*, the grazing incidence rose from 6.76 of the previous year to 6.59 acres, in *Vizagapatam* from 12 acres to 11 acres, in *Upper Godavari* from 3.60 acres to 3.36 acres, and in *Guntur* from 2.83 acres to 2.41 acres. In *Lower Godavari* the grazing incidence fell from 2.00 to 2.34 acres. In *Nellore*, out of 430 Kanchas, 384 were sold at different rates, of which 211 were on long lease for 3 years against 165 of last year, and only 28 Kanchas remained unsold for want of demand or poor rainfall against 43 of last year. This was an improvement. The number of cattle licensed to graze was 585,023. The increase in *Upper Godavari* is attributed to the greater interest taken by the Range Officers in getting the cattle licensed and to the greater accuracy of the cattle census taken.

The number of cattle impounded was 39,570. Increase was in particular noticeable in *Ganjam*, *Guntur* and *Nellore* and was ascribed to greater vigilance of the protective staff. In *Nellore* a large number of cases was detected in closed coupes and unsold Kanchas.

(d) *Protection against injuries from natural causes.*

14. *Ganjam.*—Creepers were cut everywhere by subordinates free of cost. Very little progress was made during the year in determining the cause and remedy for the attack of whiteant on young sal stems nor has any conclusion been arrived at as to how far such attacks and rot are inter-connected. The Sylviculturist, Forest Research Institute, Dehra Dun, visited the forests in July 1924 and suggested certain experiments which he considers worth carrying out in this connection. The Forest Entomologist, Dehra Dun, already recorded his opinion after his tour in February 1924 that the remedy appears sylvicultural and agrees that the experiments suggested by the Sylviculturist are worth trying and suggested slight modifications. The report was received too late to lay out the experimental plots, so this can be done only after the rains are over. It is hoped that the experiments to be carried out will throw more light on the subject. It is still to be determined what percentage of the new regeneration is actually affected by disease. In *Vizagapatam*, creepers were cut in sal areas of Burna reserve and in the whole of Dinubhai reserve at a cost of Rs. 94. Creepers and thorny growth were cut in an area of 40 acres containing *Xylia Xylocarpa* in Karaka reserve, Extension B, free of cost. In *Upper Godavari*, in order to favour the existing teak, cutting down or girdling of soft wooded species and creepers was done in areas fit for clear felling at a cost of Rs. 125-3-0. The same was done in the teak lankas of Papikonda reserve of *Lower Godavari* division at a cost of Rs. 36. *Nellore.*—The experiments carried on during the last two years of scraping *Loranthus*, *Longiflorus* and *Viscum Orientale* from Nux-vomica trees over a plot of 20 acres in Sriharikota reserve not having been successful, the operations were restricted and concentrated to 5 acres. Nothing definite could be deduced from the results hitherto seen, but it is a fact that the pest reappears on trees and even from places where *Loranthus* had been removed and where tar had been applied. The operations are being continued in 1925-26. Lopping and pruning of inferior species interfering with the growth of Red Sanders over 122 acres in Blocks IV to VII and cutting *Loranthus* from the affected branches in Kollurpad plantation in Kavali range were undertaken at a cost of Rs. 42-9-3.

CHAPTER III.—SYLVICULTURE.

SECTION 1.—FORMATION AND REGENERATION OF FORESTS.

(i) *General progress of areas under regeneration.*

15. Regeneration of Sal in *Ganjam* was as usual. No flowering of *Dendrocalamus* or *Bambusa* was noticed. In *Upper Godavari* natural reproduction of *Terminalia tomentosa* in Nugur reserves and *Xylia Xylocarpa* in Rekapalli hill reserve was satisfactory. In *Lower Godavari* natural regeneration of teak in Teak Lankas of Papikonda reserve, of Satinwood in Labbarti reserve, was good; natural regeneration of *Avicennia officinalis* and of *Excoscaria Agallocha* in the mangrove forests of Rajahmundry range and of *Xylia Dolabriformis* in Kopalli and Rajavommangi reserves was very good; natural regeneration of *Memecylon edule* in the Devancheruvu reserves and of *Pterospermum suberifolium*, gregariously in extensive patches in Lododdi reserve, was excellent. Areas under systematic working in the upland reserves are regenerated almost entirely by coppice and in the mangrove reserves regeneration is altogether by seeds deposited by the tides.

(ii) *Establishment of reproduction under working plans or schemes.*

(a) Mainly natural.

16. Regeneration was entirely natural in *Ganjam*, *Lower Godavari* and *Guntur*.

(b) Mainly artificial.

17. In *Lower Godavari* the casuarina planting started last year was continued. 65 acres were planted on contract at Rs. 20 per 1,000 established plants delivered after one year. Planting distance 7 ft. by 7 ft. Failures in the last year's planting were replaced by subordinates free of cost. The plantation expenses work out at Rs. 45 per acre, at 3 per cent compound interest for a ten-year rotation. Net profit is expected to be Rs. 105 per acre. Local enterprise on similar sandy land is in the shape of coconut planting at present. The practice of sowing sandal seeds in the fuel reserves was abandoned.

(c) Afforestation.

18. Nil.

(iii) *Plantations and other forms of regeneration not under working plans or schemes.*

19. *Ganjam.*—Red Sanders planted in September 1923 in ten cents of Napier's Park reserve survived this hot season. *Vizagapatam.*—Chinnamangalapuram tope was divided into four blocks

under Conservator's orders. The first block was sold for Rs. 1,500 in 1924-25. The other three blocks will be sold one in each year and, as the tree growth is removed, the land will be handed over to the Revenue department for disposal under the darkhast rules. The land is valuable for cultivation and will fetch a good price being situated on the bank of the Nagavali river. The orange tope at Busilikota is said to be in fair condition and brings in Rs. 50 annually. *Upper Godavari.*—As reported in the last administration report, no new taungya operations were carried out in the 'teak bearing' areas. But under Conservator's orders an area of 20 acres was selected in Rekapalli hill reserve (a non-teak area) for teak taungya as the site and environments eminently suited teak, as is evidenced from the splendid growth in the 1921-22 teak taungya the tallest plant of which measured 17 ft. 5 in. in December 1924. The average is 7 ft. The right to cut and remove only the marketable timber and bamboos in this area was leased out to a contractor and the coupe was taken back and handed over to the hill men (Reddis) for burning and raising a jonna crop during the next monsoon. In 1926-27 the coupe will be taken back and sown with teak seeds in lines. The result of this operation will be watched and reported in future years. The teak seedlings cut back in the teak taungya 20 acres by 15th March 1924 in Rekapalli hill reserve have grown well—tallest 9 ft., average height 3 ft. The result of broadcast sowings done between 28th March 1924 and 31st March 1924 is very satisfactory. Seedling ranging from 3 in. to 1 ft. high were found all over the area on 6th December 1924. As weeding the whole area was costly and difficult, promising seedlings at a rough spacing of 9 ft. × 9 ft. are receiving special attention. Similar operations were conducted in Mattapalli taungya also and the results are reported satisfactory.

Clear fellings—Upper Godavari.—It was pointed out in the last year's administration report that the method of burning the rubbish in heaps in each coupe and sowing seed, weeding, mulching, etc., was financially unsound. This year the District Forest Officer in consultation with the Conservator decided not to burn the rubbish in *heaps* but to burn it *in situ* by setting fire to the whole area of the coupe; and a second burning was done subsequently. The change in method reduced the cost of the operation from an average of Rs. 45 to an average of Rs. 32 per acre. Seeds of valuable species such as teak, maddi, yegisi were broadcasted in burnt patches before the monsoon. No further nursing is contemplated. The results of this operation will be reported in the next administration report. The teak seedlings in burnt patches in coupes 1 to 4 of Bhadrachalam and Marrigudem ranges are thriving.

The seedlings in the burnt patches in coupes 1 to 3 of Pulusumamidi range were also doing well.

The following are the measurements of the coppice shoots in clear-felled areas:—

Range.	Number of the coupe.	Average height of coppice.	Height of the tallest.
Bhadrachalam ...	1	9¾ ft.	13 ft.
	2	6¾ ft.	9 ft.
	3	4¾ ft.	6 ft.
	4	3 ft. 6 in.	4 ft. 6 in.
Marrigudem ...	1	11 ft.	16 ft.
	2	10 ft.	12 ft.
	3	6 ft.	8 ft.
	4	3 ft.	4 ft.
Pulusumamidi ...	1	15 ft.	18 ft.
	2	13 ft.	15 ft. 6 in.
	3	...	...

Nellore.—The old plantation at Kollurpad reserve continued to be maintained. The species met with are *Albizzia lebbeck, Cassia Siamea,* Neem, *Pterocarpus Satalinus, Hardwickia binata* and *Chloroxylon swietenia.*

(iv) *Tending.*

20. *Ganjam.*—Cleaning at age 9 months and creeper cutting at age 3 years was done in even-aged crops of Plains Sal Timber working circle. *Upper Godavari.*—Climbers were cut in the unburnt portions of the clear-felled coupes in August and October 1924 and January 1925. The seedlings in the burnt patches were weeded and freed once during the rains and a second time after the rains. They were also mulched twice before the commencement of the summer. *Lower Godavari.*—In the recently felled timber and fuel coupes in Kopalli and Bedadavole reserves of Polavaram range and also in the newly felled fuel coupes of Peddapur and Rajahmundry ranges, cleaning and climber cutting were done at a cost of Rs. 262. In the coupes elsewhere climber cutting and girdling of inferior species were carried out by the subordinates free of cost. *Nellore.*—Light thinnings were carried out in the Kollurpad plantation.

(v) *General.*

21. *Vizagapatam.*—Sandal was sown in the compound of the Range office at Narasapatam and the reproduction was good. Fresh flowerings of *Dendrocalamus strictus* were observed in patches here and there in Antikonda, Palkonda, Burna, Sanivaram and Dharakonda reserves. *Bambusa Arundinacea* seedlings were coming up profusely and vigorously in Narasapatam range. *Dendrocalamus strictus* is also coming up where the clumps died in previous years.

Lower Godavari.—Semi-gregarious flowering of *Dendrocalamus strictus* in Peddapur and Gokavaram ranges and to some extent in Polavaram range has ceased and seedlings are now springing up vigorously. Teak in Polavaram range flowered very well but the quality of seed produced suffered owing to an attack of defoliators. There was an exceedingly heavy crop of wild mangoes and a bumper crop of tamarind in all the agency reserves of Peddapur and Gokavaram ranges.

SECTION 2.—TENDING OF THE GROWING STOCK.

22. *Ganjam.*—Cleanings were done in clear-felled coupes of the previous year in both the felling series at an average cost of Rs. 2-8-0 per acre. A second cleaning was done in Chendragiri coupe II by the Vernacular Training School at an additional expenditure of Rs. 7-4-0 and also in coupe II, Korchulli, at a cost of Rs. 64-8-0, the material removed being sold for Rs. 14. *Thinnings.*—A very light thinning combined with a clearing (removal of soft woods,, Sterculia, Grewia, Xylia, Gmelina, Bomgax, etc.) and creeper cutting was carried out in Chendragiri coupe I. Mr. Sarma, Assistant Conservator, thinned and cleared and cut creepers in Korchulli coupe I at a cost of Rs. 92-10-0 and the material was sold at an unusually favourable price Rs. 70. In the case of this coupe all soft woods were removed and some Sal as well. The coupe was inspected by the District Forest Officer and he considered that the cleaning was too heavy and that the trees left are liable to bend over during the rains. Creeper cutting in Chendragiri coupe III and Koruchulli coupe III was done. In Chendragiri coupe II it was in progress. Thinnings in Plains Sal Pole working circle, 464 acres in Russellkonda range, 94 acres in Bontha range and 113 acres in Buguda range were thinned. The poles were sold for Rs. 1,130 against an expenditure of Rs. 1,013 incurred. Mango and ficus trees were felled in Kontaipalli working series of Russellkonda range. As no experience had been obtained in the treatment to be adopted in the new Sal crop, the provisions of the working plan for such operations were tentative suggestions. These suggestions have been followed and thinnings have not been made till the fifth year. Experience has shown however that the trees when exposed lack rigidity and are liable to bending, especially after being subjected to heavy rain. The Imperial Sylviculturist was consulted and he has given it as his opinion that the cause of this bending is due to the Sal being on the edge of the Indian Sal tract and to the fact that it is growing in a climate which has more moist heat than it is used to. It is apparent that some different treatment is therefore necessary and the remedy would appear to be to conduct these thinnings at a very much earlier age to induce the Sal to

grow sturdier so that it will be able to stand by itself when deprived of the support of its neighbours. If this measure is to be adopted, it will be necessary to carry out the cleanings on a heavier scale and at that time not only to cut out the inferior species, but also to cut out some of the Sal so as to allow the trees which are to form the final crop more growing space from the start and even to carry out light thinnings for several years till the trees attain enough rigidity to enable them to withstand heavy rain. The matter remains to be settled by experiment however.

Thinnings in the Pole working circle had been allowed to fall into arrears in the earlier years of the plan as it was considered that the produce removed from young coupes would not be saleable. These arrears have now almost been made up. The materials obtained from the thinnings carried out during the year were sold at a good rate and the operations were a financial success, besides benefitting the final crop.

Vizagapatam.—In some of the Sal areas in Burna and in the whole of Donabhai and Samaralli reserves, creeper cutting was done at a cost of Rs. 94 to favour the growth of Sal. In other areas creeper cutting was done by beat subordinates free of cost.

Upper Godavari.—Regeneration fellings were made over 14 acres in Rekapalli Hill reserve; 94 acres in Ramachendram reserve and 78 acres in Tunikicheruvu reserve, in advance of clear-felling to encourage the springing up of teak seedlings from the dormant seeds on the ground, and to favour the existing teak. The operation consisted of cutting all climbers and girdling or cutting out such species as *Zizyphus*, *Bridelia*, *Gyrocarpus*, *Terminalia belerica*, etc. The cost was As. 10 an acre on an average. Some amount of creeper cutting and girdling of useless species interfering with the valuable species was also done in stock-mapped areas by beat staff free of cost.

Lower Godavari.—In the stock-mapped teak areas in Papikonda and Kopalli reserves of Polavaram range, climber cutting and girdling of inferior species were carried out at a cost of Rs. 36.

CHAPTER IV.—EXPLOITATION.

(a) System of Management.

(i) *Major produce.*

23. The different sylvicultural systems in force were—

Clear or regeneration fellings—Ganjam.—Clear fellings were carried out in the two felling series of the Plains Sal Timber working circle.

Series I, Periodic Block I.—All timber fit for the mill having been removed during tre previous year from Chendragiri coupe VI, 145 acres, the remaining growth was sold for Rs. 4,090. In addition, the extraction of timber fit for the mill was taken up in Brahmanasayi coupe VII and the remaining growth will be clear-felled in 1925-26. 16,480 c. ft. were removed, of which 1,257 c. ft. were carted to the mill. The carting work was still in progress at the end of the year.

Series II, Periodic Block I.—The extraction of mill timber which was started in the 1923-24 coupes was completed in 1924-25. 4,061 c. ft. were extracted, of which 2,778 c. ft. were carted to the mill. The remainder was sold as rejects *in situ* at Re. 0-5-1 per c. ft. The remaining growth in the coupe was sold to a contractor for Rs. 1,815 or Rs. 33 per acre.

Ravine working circle.—Clear-felling was again resumed, and the growth in coupe III (67 acres) was sold to a contractor for Rs. 335. (This is the first time that it has been possible to sell the growth in these out-of-the-way Ravine coupes.)

Upper Godavari.—69.60 acres in Tunikicheruvu reserve of Bhadrachalam range, 85 acres in Ramachendram reserve of Marrigudem range and 77.76 acres in Rekapalli Hill reserve of the Pulusumamidi range were clear-felled. The saleable timber in all these areas was extracted and carted to the Godavari river bank for sale. The refuse was collected in heaps and burnt. Teak seeds were broadcasted thinly in burnt patches by beat staff free of cost. The average cost of the operation was Rs. 2,402, Rs. 2,600, Rs. 2,502 or Rs. 34-8-2, Rs. 30-12-0 and Rs. 32-4-6 per acre respectively. The gross revenue obtained by the sale of the timber obtained was Rs. 2,950, Rs. 4,950 and Rs. 3,108 respectively. Besides the above, portions of 1925-26 coupes were also felled during 1924-25 whose cost and yield will be dealt with in the next year's report.

Selection fellings—Ganjam.—The selection fellings in the Rambha reserve were completed. 51,036 c. ft. were carted to the mill. Rejections were sold at Re. 0-2-6 per c. ft. which on representations by the contractor was reduced later to Re. 0-1-6 per c. ft. The selection fellings in Rogodo reserve, Surada range, were in progress. Fellings in Gundribadi reserve compartments 1 to 3 in Periodic Blocks II, III and IV; yield 27,742 c. ft. of which 18,676 c. ft. were carted to the mill at a cost of Rs. 8,270. Rejects 9,066 c. ft. sold at Re. 0-3-6 per c. ft. Paichalia reserve yield 18,365 c. ft. at an average cost of Re. 0-0-6 per c. ft. of which 15,051 c. ft. were carted to the mill at a cost of Rs. 4,566 and the balance sold *in situ* Kriamba reserve, exploitation was undertaken

in January-September 1924, but the operation was stopped in accordance with Chief Conservator's Proceedings 126, dated 7th April 1924. Yield up to date of stopping 12,440 c. ft. of which 10,875 were carted to the mill and the balance 1,565 c. ft. sold for Rs. 601. The cost of the operation was Rs. 4,489-2-7. *Guntur.*—Selection fellings were confined to the Takkellapad reserve in Sattenapalle range, a very small area.

Improvement fellings—Vizagapatam.—Such fellings were carried out in Donabhai and Samaralli reserves by felling Sal trees of 3 ft. and over in girth. *Upper Godavari.*—Cutting down climbers and girdling soft-wooded and useless species which hinder the growth of the better species were carried out over 14 acres in Rekapalli Hill reserve of the Pulusumamidi range at a cost of Rs. 17, 94 acres in Ramachendram reserve of Marrigudem range at a cost of Rs. 30, and 78 acres in Tunikicheruvu reserve of Bhadrachalam range at a cost of Rs. 78. *Guntur.*—Improvement fellings were adopted in the case of the timber felling series under the tentative working plan for Bollapalli and Guttikonda reserves of Vinukonda range.

Simple coppice and coppice with standards.—The fuel coupes in all the divisions were worked under simple coppice except 3 coupes in *Vizagapatam*, and the fuel felling series, under the Bollapalli and Guttikonda plan and under the Repalle mangrove working plan in *Guntur*, which were worked under coppice with standards. In *Lower Godavari*, the two teak timber coupes of Bedadavole and Kopalli reserves in Polavaram range were also treated under simple coppice. These were sold at an average rate of Rs. 24-1-6 per acre.

Unregulated fellings.—These were as usual confined to unreserved lands and to the Rampa forests. In *Upper Godavari*, these fellings were confined to unreserved lands in the division which are under the control of the Forest department, and were carried out in coupe 5 of Nugur and coupe 7 of Chirala ranges. Only a portion of coupe 5 of Nugur was worked owing to the difficulty of procuring iron-axled carts for carting the heavy logs extracted from the coupe. The remaining portion is being worked in 1925-26. The yield in the two coupes was 8,832 and 3,481 c. ft. and realized Rs. 7,300 and Rs. 2,365 respectively after carting to the nearest revu. The cost of the operation was Rs. 1,950. The Yepi coupes II and III in the unreserves of Bhadrachalam range were leased out to a contractor for Rs. 1,647. No fellings were carried out in Lakkavaram as the cycle of the first fellings was completed by 1923-24 and there were no valuable trees of exploitable girth left.

(ii) *Minor produce.*

24. *Bamboos and miscellaneous produce.*—Three methods of extraction were in vogue, viz., departmental collection, leasing the right of collection and collection on permits. The first method was resorted to only to meet the petty requirements of the department for repairs to rest houses, etc. The produce was generally leased to contractors except in the Sriharikota reserve of the *Nellore* district where the minor forest produce was collected departmentally by the Yanadis. The right to collect seigniorage from purchasers at shandies for minor produce, purchased from hill tribes, was leased in *Vizagapatam*. Collection on permits was allowed from the Agency tracts in *Lower Godavari* and from some of the forests in *Upper Godavari* which were not leased out.

Strychnos Nux-vomica.—In *Vizagapatam* and *Upper Godavari* the produce could not be sold for want of demand. Rs. 885 was realized in *Lower Godavari* by leasing the right of collection in the whole division for one year. Gedara bark (*Ceriops Candolleana*) used for colouring fishing nets and Gedara sticks were sold in *Lower Godavari* for Rs. 1,215. This produce is sold every alternate year thus giving rest to the trees.

Tangedu bark was sold separately in Narasapatam and Sarvasiddhi ranges in *Vizagapatam* division. It could not be sold in Palkonda range for want of demand. In *Lower Godavari* the right to collect and remove the bark was leased for Rs. 4,286 for one year.

Fodder grass and hay—In Ganjam.—The right to collect grass in Napier's Park reserve was sold. In *Lower Godavari*, the removal of fodder and thatch grass was allowed on permits as usual from all the reserves except Coringa and Coringa Extension reserve in which the right was leased. The right to cut and remove fodder grass from the cantonment ground at Samalkota was leased.

(b) AGENCY OF EXPLOITATION.

(i) *Departmental Agency.*

25. The outturn of major produce by departmental agency is compared with that of last year in the following abstract:—

——	Timber in thousands of cubic feet.	Fuel in thousands of cubic feet.	Bamboos.	Minor produce.
			Rs.	Rs.
1923–24	383	362	891	6,646
1924–25	362	168	399	26,930

The quality of major produce exploited was 8.8 per cent of the total outturn and mainly consisted of the timber felled in *Ganjam* for the saw mill and the timber obtained from clear fellings carried out in *Upper Godavari*. The decrease in 1924-25 shown in the above statement is due to the fact that in *Ganjam* less timber was felled for supply to the mill owing to there being large stocks available in the depot. In *Upper Godavari*, it was due to the reduction made in the sizes of the clear-felling coupes of the year, and to there being no timber of exploitable girth in the unreserve coupes of Lakkavaram range as the cycle of fellings in those coupes were completed by 1923-24. The decrease under 'fuel' was due to thinnings being carried out on a smaller scale in *Ganjam*. The decrease under 'bamboos' was due to no new departmental buildings being constructed in *Lower Godavari*. Under 'minor produce' there was increase and it was due to departmental collection in Sriharikota reserve in *Nellore*.

(ii) *By Purchasers.*

26. The following abstract compares the quantity of major produce and the value of minor produce removed by purchasers during the year with those of the preceding year :—

—	Timber in thousands of cubic feet.	Fuel in thousands of cubic feet.	Bamboos.	Grass and grazing.	Other minor produce.
			RS.	RS.	RS.
1923-24	836	5,453	1,31,721	2.06,855	1,31,653
1924-25	896	4,404	1,20,879	2,13,276	1,23,298

The increase under 'timber' is noticeable in *Guntur* and is ascribed to increased removals of miscellaneous timber from unreserves. It is also due to removals from unreserves in the now abolished *Kistna* division being credited now to *Guntur* division. The decrease under 'fuel' is due to there being less material in the coupes worked. Under 'bamboos' it was due to the smaller number of coupes sold in *Ganjam* and *Lower Godavari;* and to poorer stocking of the coupes sold in *Upper Godavari.* The increase under 'grazing' was due in *Upper Godavari* to greater vigilance shown by the Range Officers in getting the cattle licensed and to the absence of cattle disease; and in *Lower Godavari* to the enhancement of grazing fees for 'local' cattle. The decrease under 'minor produce' was due to poorer demand and to smaller collections by the Revenue department.

(iii) *and* (iv) *By right-holders and under privileges and free grantees.*

27. The quantity and value of the produce removed under this head were as follows:—

—	Timber in thousands of cubic feet.	Value.	Fuel in thousands of cubic feet.	Value.	Bamboos.	Grazing.	Other minor.	Total outturn.
		Rs.		Rs.	Rs.	Rs.	Rs.	Rs.
Right holders .	9	1,550	..	..	135	267	500	2,452
Free grantees ..	123	8,806	44	917	879	10,933	813	22,348

Rights—Ganjam.—The Khonds of Chokkapad Khandam enjoyed as usual their right to free removal of timber, etc., for their domestic and agricultural purposes and free grazing of cattle. The Khonds, elsewhere than in Chokkapad, were granted concessions in the way of building materials, etc., and free grazing, in return for services rendered by them in general protection, and in fire protection.

Free grants.—Free grants were made to villagers throughout the circle chiefly for rebuilding houses destroyed by fire. Exceptional cases of free grants were for the construction of huts in the criminal settlement at Kavali in *Nellore* district. Free grazing to the extent of Rs. 843 was allowed in Dharakonda, Sanivaram and Karaka reserves to the inhabitants of the neighbouring villages for services rendered by them in fire protection, etc. The estimated value of all grants was Rs. 22,348 against Rs. 29,694 in the previous year.

(c) OUTTURN AND SOURCES OF FOREST PRODUCE.

28. The total outturn from all agencies is compared with similar details of last year in the following statement:—

—	Timber in thousands of cubic feet.	Fuel in thousands of cubic feet.	Bamboos.	Gross value of minor produce including grass and grazing.
			Rs.	Rs.
1923-24	1,389	5,864	1,33,659	3,60,443
1924-25	1,390	4,616	1,22,292	3,76,017

The total number of cattle for which grazing was provided was 585,023 against 448,899 in the previous year. The difference is

due to the conversion of Kancha revenue in *Nellore* into 'cow units'. These figures appear included in the grazing return, which was not the case in previous years.

CHAPTER V.—FINANCIAL RESULTS.

29. The financial position of the year is compared with that of the previous year and the average of the preceding quinquennium in the following abstract:—

—	1924-25.	1923-24.	Average of the previous quinquennium.
	Rs.	Rs.	Rs.
Revenue	10,69,452	10,31,081	9,14,017
Expenditure.			
B. Conservancy and works	2,00,675	1,90,021	2,26,516
C. Establishments	5,08,689	5,15,700	5,08,257
Total ..	7,09,364	7,05,721	7,34,773
Surplus ..	+3,60,088	+3,25,360	+1,79,244

The financial results of the year show a surplus of Rs. 3,60,088 against Rs. 3,25,360 in the previous year. In order that the comparison may be correct, *Guntur* and *Nellore* figures have been included in the figures under "1923-24" and in the "average of the previous quinquennium" in the above statement.

Forty per cent of the revenue was derived from major produce, 24 per cent from minor produce, 20 per cent from grass and grazing, and 16 per cent from miscellaneous items. Of the expenditure 21 per cent was incurred on exploitation of forests, 12 per cent on their upkeep and improvement, and 67 per cent on miscellaneous items. The revenue outstanding at the end of the year was Rs. 72,449, of which Rs. 24,011 fell due within the year. The important variations under 'Revenue' and 'Expenditure' are explained below:—

RECEIPTS.

(i) *By Departmental Agency.*

Timber (-Rs. 3,023).—Due to the adjustment by the Accountant General in 1923-24 March final accounts of the value of timber supplied to the saw mill at Russellkonda and which remained unadjusted since its start.

Fuel (- Rs. 4,249).—Due to there being no fuel from thinnings and wind-fallen trees collected and sold departmentally in *Lower Godavari* as in the previous year.

Minor produce (+Rs. 19,786).—Due to sale of last year's stock of Nux-vomica in the current year and to greater collection of minor forest produce in Sriharikota range in *Nellore*.

(ii) *By Purchasers.*

Timber (+ Rs. 10,599), fuel (— Rs. 26,641), bamboos (— 10,072), grazing (+ 10,725), minor produce (— Rs. 15,867).—The variations under these sub-heads were due to reasons already mentioned in paragraph 26.

V (*a*) Fines and forfeitures (— Rs. 73,975),

(*b*) Other sources (+ Rs. 87,989).—Due to credit of compounding fees to V (*b*) instead of to V (*a*) as hitherto. The sale of barbed wire in Ganjām also contributed to the increase under V (*b*).

Under 'Recoveries of investments from Government commercial undertakings' there was a credit of Rs. 46,615 which added appreciably to the surplus revenue of the circle.

EXPENDITURE.

Under 'B. Conservancy and Works' there was increased expenditure of Rs. 10,654 accounted for mainly by charges incurred on carting to the saw mill at Russellkonda of logs felled during the previous year and a larger amount debited under 'Investments on Government commercial undertakings'. Under 'C. Establishments' there were savings of Rs. 7,011 due chiefly to the abolition of the *Kistna* division. The payment in the previous year of travelling allowance to Mr. Longrigg for his visit to Gorakpur Sal forests and economy in expenditure under travelling allowance in the current year also contributed to the savings.

CHAPTER VI.—RESEARCH AND EXPERIMENTS.

(a) RESEARCH.

30. Nil.

(b) EXPERIMENTS.

31. *Upper Godavari.*—With a view to find out the rate of girth increment on individual Satinwood trees in a mixed crop, and in a pure crop, and also to find out when it ceased to grow, 4 sample plots in Bhadrachalam range in two different places (Bandrevu and Tunikichirevu reserves), two for pure and two for mixed crop, were

opened in 1922-23. Fifty of the best trees from one to two feet and over in girth were selected. The annual increment appears to be very slow being .28″ in pure crop and .365″ in the mixed crop. Probably this is fortuitous. *Guntur.*—Mr. Littlewood made good progress in study of mangrove problems. Sandal sowings were done in parts of *Guntur* and *Nellore* without success. *Nellore—Eradication of noxious growth.*—Instead of the previous costly experiments in fodder reserves to eradicate thorny and other noxious growth and to increase the area of pasture, the system of modified fodder operations was introduced during the year. Under this system, the lessee of the coupe was allowed to cut and remove these thorny species, etc., and to cut and remove the standing growth at a nominal flat rate of Re. 0-8-0 per acre. This did not prove popular with the ryots, was a failure in practice and was discontinued.

CHAPTER VII.—ADMINISTRATION.

32. An important event of the year was the abolition of the *Kistna* forest division. A number of reserves was transferred to panchayat management and the balance were absorbed in *Guntur* and *Lower Godavari* divisions.

33. *Tours.*—Mr. Barry was in charge of the circle throughout the year and spent 202 days in camp. The prescribed minimum of touring was done by all the District Forest Officers except *Vizagapatam.* The short touring in *Vizagapatam* was due partly to economy in travelling allowance and partly to Agency disturbances which kept the reserves in Narasapatam range closed for inspection until August 1924.

The Chief Conservator visited *Ganjam* in January 1925. The Imperial Sylviculturist, Dehra Dun, paid a visit to *Ganjam* Sal forests in June 1924 and January 1925.

34. *Inspections.*—The Conservator inspected all the District Forest offices except *Ganjam* and *Vizagapatam.* The two latter offices were inspected since the close of the year. *Guntur* and *Nellore* District Forest offices were inspected respectively by the Conservators, Second and Third Circles, under whose jurisdiction they were in the year under report. The results were satisfactory.

Mr. Barry inspected the forests in *Ganjam, Vizagapatam, Upper Godavari* and *Lower Godavari* and wrote notes on important inspections. He visited the *Parlakimedi Maliahs* and discussed with the Special Forest Officer and reported on the question of reservation in the division. He also visited the Paper Pulp Factory at Rajahmundry and discussed with the Director of Industries and Mr. Raitt, the Paper Pulp Expert, in connection with the departmental supply of bamboo to the mills. He also inspected some typical forests in

Rampa in company with Mr. V. N. Seshagiri Rao, Ertra Assistant Conservator, who was on special duty to inspect and report on the Rampa forests. The Rampa forests appear to be comparatively of high quality, and Mr. V. N. Seshagiri Rao has written a valuable report. Messrs. Wilson and Whitehead inspected the forests of *Guntur* and *Nellore* respectively.

35. *List of offices audited.*—The accounts of all the District Forest offices were audited by the Local Fund staff of the Accountant General's office and the results were reported satisfactory.

36. *Vernacular Training School.*—The school was held in *Ganjam* and lasted from 6th January 1925 to 18th June 1925. Thirty-three students were trained, of whom 5 were from Bihar and Orissa, 1 from Palhara State and 1 from Nayagarh State. The school was inspected by the Conservator of Forests. The health of the instructors and students was good. The instruction and discipline were satisfactory.

The necessity for maintaining a vernacular training school continues to exist. The statistics of trained and untrained men show that 33 per cent of Foresters and 63 per cent of Forest Guards are still untrained. Of these untrained men 25 per cent of the Foresters and 47 per cent of the Forest Guards are fit for training, the rest being past the age of training or otherwise unfit.

37. *Health of the establishment including an account of measures of sanitation and casualties.*—Malaria continued to affect the subordinates in *Upper Godavari* and the Agency portions of *Ganjam, Vizagapatam,* and *Lower Godavari.* Medicines were supplied to Range Officers for free distribution to subordinates. *Casualties.*—One Range peon in *Vizagapatam,* 1 Forest Guard in *Upper Godavari,* 1 Ranger, 2 Foresters and 2 Forest Guards in *Lower Godavari.* Two Forest Guards were brutally murdered while in the discharge of their duties, and the question of pensions to their dependents is under consideration. Thirty-one out of 150 subordinates in *Upper Godavari* and 40 out of 254 subordinates in *Lower Godavari* went on sick leave. Malaria and elephantiasis affected some subordinates in Sriharikota range of *Nellore* district, but there were no casualties on that account. The health of the establishment in *Guntur* was reported satisfactory: it was observed that of the subordinates under training at the Vernacular Training School those from *Guntur* were conspicuous for good physique.

CHAPTER VIII.—GENERAL.

38. *Formation and management of Panchayats (to include the Forest Village system)—Lower Godavari.*—2,252 acres in Kandikuppa reserve, 4,180 acres in Chintalapudi and Velagalapalli reserves

and 40 acres in Murari reserve were brought under Panchayat management with (it is reported) satisfactory results. *Guntur.*—In addition to the 34 panchayats working at the commencement of the year, 2 were formed for Motupalli and Perallavandlapalem reserves during the year, and 18 were transferred from *Kistna. Nellore.*—No new panchayats were formed. The work in the three existing panchayats, viz., Kavali, Karedu and Potlur, was gnerally satisfactory except that in Kavali bad protection and other irregularities are reported to have been brought to the Revenue Divisional Officer's notice. No panchayats were formed in the other divisions. An attempt to form panchayats in the new Yellamanchilli grazing working circle for 5 reserves in *Vizagapatam* did not succeed as the people were unwilling to undertake the responsibility.

Orders to transfer the panchayats and panchayat areas to the control of the Revenue department have since been received from Government.

The Forest village system is not in force in this Circle.

39. *Conferences and meetings—Nellore.*—No formal conferences and meetings were held but opportunity was fully taken by all the departmental officers during tours to hear complaints from the ryots and remedy them wherever possible. The District Forest Officer, *Nellore,* did good propaganda work in connection with the Kancha system. As a result of his endeavours and those of the Rangers the 'long leases' which we now prefer increased from 165 to 211. The profiteering elements among the villagers stand to lose by this system; and the District Forest Officer and staff have had to put up with a campaign of untruthful petitioning and with endeavours at litigation.

40. *Measures for improving local supplies and facilities (includes water-supply, manure leaves, etc.).*—The wants of people in the matter of fuel and small timber were met in all divisions and there were no complaints. There is no demand for manure leaf from the forests in this Circle. In *Vizagapatam,* Amma tank in the Antikonda reserve was deepened at a cost of Rs. 115 so as to make it hold water in the hot weather. In *Guntur,* in view of the very serious prevalence of forest crime, special attention continues to be paid to the problem of catering for all requirements of the law abiding population. Everything that can be done in the way of making available small timber for agricultural requirements and fuel, fodder leaves is being organized.

The well in Mutkur Extension II was deepened. The takis near the Kondapalli bungalow were cleared of weeds and rubbish. Two wells—one in Kondapalli reserve compartment 4 and the other called

Dongamarlabhavi—were repaired. Encouragement was given to the philanthropic public to repair existing kuntas and spring channels and for construction of new tanks. Five kuntas were repaired in that way. No difficulties regarding the supply of water in reserves were brought to notice since the block system of grazing was abolished and the permit declared valid for the whole range. *Nellore.*—Ponds and tanks in grazing blocks were repaired departmentally at a cost of Rs. 250 and two tanks in Rapur range were also repaired by Kanchadars.

41. *Timber Transit Rules.*—The rules worked satisfactorily in all the divisions. In *Vizagapatam*, one tanah station at Narasapatam was abolished as unnecessary.

42. *Jungle tribes—Ganjam.*—The department continued on good terms with the Khonds. *Vizagapatam.*—The hill tribes availed themselves of the privileges conferred on them without complaint and without abuse of rules. *Upper* and *Lower Godavari.*—The Koyas and Reddis continued to be useful. They were employed on all departmental operations. They were granted rewards, in addition to wages, for the successful protection of the forests from fire and were also allowed the concession of free grazing and free removal of forest produce for their domestic and agricultural requirements. They had in addition to the above the privilege of podu cultivation in unreserves of Bhadrachalam taluk in *Upper Godavari.* The settlers in the Agency tracts of *Lower Godavari* also rendered similar help to the department in return for which they were allowed grazing at the concessional rate of one anna per cow or buffalo; they were also given rewards for successful fire protection work. It is to be noted that the so-called settlers constitute 95 per cent of the local population now. The absence of hill tribes in the heart of the Rekapalli and Marrigura hill reserves, the District Forest Officer reports, is a handicap to the utilization of the material in these reserves. In *Nellore*, the Yanadis, about 234 in number, were employed on the collection of minor forest produce in Sriharikota range and are granted rewards in addition to their wages. The rewards are given in the shape of rice, cloth, and cash. To keep them out of the clutches of the money-lender, the cash portion of the reward is invested in the savings bank account of the Post office from which withdrawals are allowed on urgent occasions such as marriage, sickness, etc. The benefit of the system is reported to be really appreciated by the Yanadis. The number of savings bank accounts open in this way were 55 and the joint savings were Rs. 489-4-0.

43. *Mining and Quarrying.*—Rs. 59 were realized from quarrying rough stone from Ungatur reserve blocks I and II, *Lower*

Godavari division. In *Nellore*, the mica mining business continued in some of the reserves of *Nellore* and *Rapur* ranges under the control of the Revenue department.

44. *Live-stock—Elephants.*—The baggage elephant Kapila was maintained in *Upper Godavari.* She was suffering from a tumour on the left foreleg at the end of the year.

Other animals.—Out of 19 buffaloes that remained in *Ganjam* at the commencement of the year, eight were sold, one was killed by a tiger and one died and one buffalo was given as reward to Khond. The actual balance at the close of the year was 8 buffaloes.

45. *Veterinary establishment.*—Nil.

46. *Wild animals—Ganjam.*—A man-eating tiger killed a forest watcher in April 1924 while engaged in sweeping a line to stop an on-coming fire. The Government were pleased to sanction an extraordinary family pension of Rs. 4 to his son tenable for 12 years. The presence of man-eating tigers in the forests interfered with the progress of timber operations, fire protection and other works in Kukuluba and Bontha ranges and had to be counteracted with religious exercises at Government expense, including sacrifices of goats and pigs. Such measures undoubtedly inspire confidence amongst the Khond felling coolies. Government have sanctioned a reward of Rs. 250 for every tiger destroyed which can be proved to be a man-eater.

47. *Civil suits—Vizagapatam.*—The decree against the defaulting contractor referred to in the previous years' reports was executed during the year, but the judgment-debtor paid the amounts decreed in full. *Lower Godavari.*—The two suits referred to in the last year's report are now pending in the High Court of Judicature at Madras as the proprietor of the Gangole estate preferred an appeal against the decision of the Agency Additional District Judge, Vizagapatam. *Nellore.*—Two suits filed by late forest contractor B. Chenchurama Nayudu for Dugarayapatam and Sriharikota fuel contracts of 1918 are pending in the Sub-Judge's Court at Nellore. The matter is in the hands of the Government Pleader.

48. *Control of unreserved lands by the Forest department.*—In *Ganjam* the Revenue department has control and management of tree growth and is primarily responsible for its protection. Valuable tree growth is disposed of in consultation with or by the Forest department. Trees fit for the mill at Russellkonda are being extracted and the remaining growth is sold by the Forest department in cases where the applicants are unable to pay the tree valuation. The land when cleared of growth is disposed of by the Revenue department. In *Upper Godavari*, the unreserves are under the control of the Forest department and the local requirements

are met from these lands. In *Lower Godavari* the control generally rests with the Revenue department but some of the unreserved lands in the Agency portions of Yellavaram, Chodavaram and Polavaram divisions are under the Forest department. The produce from these unreserves both in Agency and non-Agency portions is removed on permits issued mostly by the Forest department and in some instances by the Revenue department. In *Guntur*, the control was vested in the Revenue department but Nux-vomica, Rela and Tangedu bark were as usual put up for sale by the Forest department in reserves and unreserves together.

The relations between the Forest and Revenue departments are cordial.

WALTAIR,
19th August 1925.

A. A. F. MINCHIN,
Acting Conservator of Forests,
First Circle.

ANNUAL ADMINISTRATION REPORT OF THE FOREST DEPARTMENT

FOR THE

YEAR ENDING 31ST MARCH 1925

SECOND CIRCLE

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

1. ALTERATION IN AREA.

Reserved forests.—There is a net decrease of about 20 square miles which is accounted for by the disforestation of some 14 square miles in *Anantapur* and 6 square miles in *South Kurnool*. Elsewhere insignificant areas were thrown out. The disforestation was mainly to satisfy the wants, and to remove the grievances of, adjoining villagers.

2. *Reserved lands.*—There is a net increase of 1,398 acres. 361 acres in *North Cuddapah* Forest division were transferred to reserved forests. 1,759 acres, of which 1,738 are in *South Kurnool* and 21 in *Chittoor*, were added to reserved lands.

2. FOREST SETTLEMENT.

3. The areas notified under section 4 during the year were pending settlement at the close of the year.

3. DEMARCATION.

4. In *Anantapur*, nearly Rs. 188 was spent in repairing cairns and in clearing boundary lines and rectifying existing boundaries for a length of twenty-three miles.

In *South Kurnool*, the portions disforested in Owk and Giddalore ranges were demarcated at a cost of Rs. 59.

In *West Kurnool*, Rs. 105 was spent on the demarcation of enclosures in the reserved forests of Bairluty range. Twenty-two miles of boundary lines to a width of 12 feet were cut and cleared of regrowth in portions of South Dhone Lanjabanda Extension, West Ramalakota and Rangapuram reserves at a cost of Rs. 88.

A sum of Rs. 85 was spent, out of funds sanctioned by the Collector, for cutting regrowth on the frontier boundary, between the *West Kurnool* division and Banganapalle State.

In *North Cuddapah*, seventeen miles of existing boundary line was recleared at a cost of Rs. 135.

In *West Cuddapah*, an amount of Rs. 190 was spent in permanently demarcating the boundary between the Putlampalli shrotriyam and Palkonda reserve, which had been under dispute. Rupees 119 was spent in rectifying the demarcation of enclosures in Ganganapalle reserve, and in re-clearing the taluk boundary between Vempalli and Ganganapalle.

In *Chittoor*, the defects in the demarcation of two miles of boundary of Paradarami reserve were rectified at a cost of Rs. 61.

Five thousand seven hundred and ninety-two miles of boundaries are reported to have been cleared by subordinates without extra cost, and 720 miles by panchayatdars.

4. Forest Surveys.

5. There was no survey either by the Survey of India Party or by the Madras Survey Party during the year.

Survey of coupes, alignment of roads, rectification and verification of boundaries, preparation of coupe maps, etc., were done by the local Forest Officers.

The prescribed reference maps were posted up to date.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. Regulation of Management.

Preparation and Control of Working Plans.

(a) Preparation.

6. The working plan of Sirvel range of *South Kurnool* was sanctioned by the Chief Conservator tentatively for ten years during the year. The reconnaissance report for Chelama range was approved by the Conservator. That for Gundlakamma range which had been prepared by Mr. J. C. Wrench, and kept in abeyance, was revised under the instructions of the Conservator. A working plan is now being prepared by the District Forest Officer for this forest.

For Gundlabrahmeswaram range the preparation of a new working plan was considered, in place of the old one prepared by Mr. H. F. A. Wood when he was District Forest Officer, which has

been held in abeyance for some years past. It was decided, however, that this old working plan was so well suited to the conditions prevailing that the preparation of a new one was quite unnecessary. Arrangements were made, after the close of the year, to continue working this excellent old working plan, with a few minor alterations rendered necessary by the changed conditions of recent years.

The preparation of working plans for various 'Chenchu working circles' was taken up, in order to regularize the fellings that have been going on for some years past in several different parts of *West* and *East Kurnool* under the name of 'Emergency coupes'. These 'emergency coupes' were primarily started to provide employment for the Chenchus. Such employment will in future be supplied in these newly formed working circles.

In *West Kurnool*, the revision of the Yerramalais' working plan for Dhone range was completed, and that for Kurnool range nearly so.

Late in the year a working plan for the pole forests of Peche-ruvu range was started. This simple scheme is being prepared by the Range Officer under the guidance of the District Forest Officer.

A preliminary working plan for the timber, fuel and bamboo forests of the Vonipenta range of the *North Cuddapah* division returned for revision has since been dropped as it will be included in the general revision of the working plans of the whole division, in accordance with the instructions of the Conservator conveyed in his latest inspection notes.

In the *West Cuddapah* division, out of an area of 24.397 square miles sanctioned as a tentative working scheme for the Ganganapalle and Idupulapaya reserves, 14.669 square miles relating to Maddimadugu East and West and Idupulapaya fuel series was cancelled by the Conservator. The work of stock-mapping the bamboo areas for the preparation of a simple working scheme was completed in respect of Vontimitta range and is in progress in regard to the other ranges of the division.

(b) Control.

7. In *Bellary*, fuel coupes were felled under the Somalapuram working plan, but the other prescriptions regarding sowing, etc., were given up as they were unsuccessful.

In *Anantapur*, the provisions of the existing working plans were generally adhered to except that, owing to drought, free grazing was allowed temporarily from the 1st of April to the 31st of December 1924; even some of the closed areas were thrown open to grazing during this period.

The sanctioned plans in the *Kurnool* divisions were adhered to.

In the *Cuddapah* divisions some of the prescriptions of certain sanctioned working plans could not be adhered to owing to lack of demand and to the difficulty of transport; in consequence coupes are in arrears. Both the *Cuddapah* and Sidhout Palkonda working plans are working at a loss owing to the poor prices realized for the produce and to the heavy cost of the establishment. Attempts are being made to reduce the deficit to a minimum.

In *Chittoor* district the tentative working plan for Horsleykonda was suspended during the year as there was no demand for fuel. The revision of the Santhapet tentative working plan is not now necessary as this reserve has been finally classed as a "ryots' forest". The work in two of the five felling series is badly in deficit on account of difficulty of access, and the work in the four improvement series has been stopped for the present from 1925-26 with reference to the Conservator's remarks in his inspection notes printed in Chief Conservator's Proceedings No. 4, dated 11th January 1925. Certain deviations from the prescriptions of the Chendragiri working plan have been sanctioned by the Chief Conservator as the allocation of the coupes in one of the series was found defective, and as the columns in the control book prescribed were too cumbersome to admit of accurate information being posted.

2. Communications and Buildings.

8. No new works costing over Rs. 5,000 were sanctioned during the year.

(a) *Roads and Bridges.*

9. About 20 miles of roads were constructed at a cost of Rs. 6,222 against 37 miles, at a cost of Rs. 3,488 in the previous year.

The new roads constructed were almost entirely in the three *Kurnool* divisions.

The details of the important new works are:—

	Miles.	Rs.
Kurnool East—		
Eguva herlopalli-Regatigunta road ...	3—0	734
Improvement to Chinnamantrala Kanama Ghat road.	0—3	414
Kurnool South—		
Bridle path from Bandlapenta to Easireddi-penta.	4—6	1,939
Diguvametta-Gundlamolvi road	2—0	921

	Miles.	Rs.
Kurnool West—		
Bridle path from Guvvalakuntla to Regulapaya.	1—0	209
Metalling Central-Nallamalai road ...	1—0	1,067
Cart track from the old rest house site to the new site at Rudracode.	...	409
Cuddapah South—		
Metalling of Kodur-Kodivengammathavi road.	0—1	199

Other works were principally alignment of roads, formation of bridle-paths and construction of Irish bridges.

Two hundred and fifty-six miles of existing communications were repaired at a cost of Rs. 17,614 against 223 miles at a cost of Rs. 20,579 in the previous year.

(b) *Buildings.*

10. The expenditure during the year was Rs. 23,953 against Rs. 29,641 in the previous year.

Of this amount Rs. 6,254 was spent on new work and Rs. 17,699 on repairs and maintenance against Rs. 9,154 and Rs. 20,487 respectively in the previous year. The establishment charged under this head fell from Rs. 7,349 to Rs. 6,764 due to the abolition of the post of bungalow watchers wherever possible.

The important items of new works were : —

Anantapur—

An additional bath room to the rest-house at Bukkapatnam.

East Kurnool—

Inspection shed at Nerjamula (Rachakonda range) Forest Guards' sheds at Doddavala and Allipalem—out-houses at Nekkanti.

Subordinates' shed at Nekkanti.

South Kurnool—

Part construction of the following buildings:—

Four semi-permanent new buildings for the use of the subordinates at Isukagundam,

One gang shed at Basapuram, and

One gang shed at Gazulapalle.

West Kurnool—

Completion of the subordinates' quarters at Sivapuram.

Part construction of a single-roomed rest-house at Rudracode.

North Cuddapah—

Reconstruction of two vernacular training sheds at Vathimadugu.

Construction of a kitchen for the Badvel range quarters.

Part construction of kitchen and out-houses including a stable for the rest-house at Rollabodu.

South Cuddapah—
Improvement to Kodur range quarters.
A latrine to Kodivengammabhavi rest-house.
A latrine to Range quarters at Chitvel.

West Cuddapah—
Completion of the construction of the inspection shed at Dinnela.

Chittoor—
Subordinates' quarters at Mamandur.
Thana sheds at Madanapalle and Baireddipalle.

(c) *Miscellaneous.*

11. Sums of Rs. 1,795 and Rs. 1,930 were spent on new works and repairs against Rs. 2,882 and Rs. 1,598 respectively in the previous year.

The chief items of new works were :—

(1) The sinking of a new well in the Range office compound at Dhone, Rs. 592.

(2) The Mamandur sanitation scheme in connection with which Rs. 641 was spent in filling in pits where water was stagnant.

The other items relate to improvements to water-supply.

3. PROTECTION OF FORESTS.

(a) *General protection.*

12. The total number of cases reported during the year was 6,530 against 6,631 in the previous year involving a decrease of roughly 1.5 per cent. The decrease occurred under fire and unauthorized felling as noted below :—

Cases.	Injury to forests by fire.		Unauthorized felling.		Unauthorized grazing.		Other offences		Total.	
	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.
Cases taken into Court	7	2	1,158	1,103	497	555	99	126	1,761	1,786
Cases compounded ..	4	3	2,973	2,855	1,220	1,197	188	327	4,385	4,382
Cases undetected ..	315	229	211	115	7	3	2	15	535	362
Total ..	326	234	4,292	4,073	1,724	1,755	289	468	6,631	6,530

13. The general decrease in the undetected cases speaks to the good work turned out by the subordinates during the year. The decrease in unauthorized fellings is largely in *South Kurnool;* it may be ascribed to the fact that more coupes to meet the demand of the local ryots for agricultural implements were opened. This entailed the further benefit of employing the coolies who habitually

live by timber smuggling. The increase under unauthorized grazing is slight. The increase under other offences is due to the inclusion of cases relating to the illicit removal of minor forest produce and other miscellaneous cases which do not fall under 'unauthorized fellings'.

14. Of the 1,893 cases taken into Court and disposed of by the Magistrates 1,373 cases were convicted and 520 acquitted.

Of the 520 cases acquitted, 299 were acquitted on payment of compounding fees, 27 were withdrawn by the District Forest Officer and only 240 were acquitted on their merits, which gives a percentage of genuine acquittal of 10 per cent.

15. The total number of cases compounded was 4,324, and the aggregate amount of fees was Rs. 57,840 with an average of about Rs. 13-6-0 per case against 4,098 and Rs. 59,098 in the previous year with an average of about Rs. 14-6-9 per case.

16. In all, Rs. 225 was distributed as rewards to subordinates in connection with the detection of forest offences.

(b) *Protection from fire.*

17. In the whole Circle the area attempted to be specially protected including early burning was 2,513 square miles against 2,687 in the previous year. The decrease is chiefly due to the opening of almost all the reserves in the *Anantapur* district to free grazing.

18. The total area accidentally burnt was 69 square miles against 207 square miles in the previous year, and the aggregate area burnt in the specially protected areas was 9 square miles or .36 per cent of the area attempted to be protected against 63 and 2.34 per cent in the previous year.

The decrease was due to more complete early burning in all districts. But as rates were very low in most places, it looks as though the success were achieved by burning rather too late.

19. The average cost for the Circle per square mile of successful protection of the specially protected area was Rs. 3-10-3 against Rs. 3-13-4 in the previous year. Each district is referred to separately below :—

In *Bellary*, the early burning system was tried in Gunda reserve; it was not a success owing to the slackness of the Range Officer, who not only delayed the work but also failed to follow the instructions issued.

In *Anantapur*, it was tried in Compartments I and II (5,017 acres) of Amagondapalayam reserve, and carried out most successfully.

In *East Kurnool*, about 228 square miles were treated under early burning and the cost incurred was Rs. 237-6-0, the average

per square mile being Re. 1-0-8. In addition a sum of Rs. 100 sanctioned by the Government for feasting the Chenchus for successful fire protection was incurred under the head. In the early burnt area there was only one fire of 22 acres. The operations were started about the middle of December and completed by the end of February.

In *South Kurnool*, the area treated under 'Early burning' in the Nallamalais was 294 square miles, of which 291.40 were successfully protected at a cost of Rs. 250 or Re. 0-13-9 per square mile. The Nallamalais of Chelama range and the southern section of the Nallamalais of Gundlakamma range were not early burnt, as this area was reserved for the military authorities for making hay. Also all the Veligondas and Giddalur blocks of Giddalur range and the extensions of the Nallamalais in Giddalur and Chelama ranges were not early burnt in order to provide grazing for the adjacent villages.

In *West Kurnool*, early burning was undertaken in the Nallamalai ranges and Chenchu labour was employed as usual in conducting the operations, supplemented by outside labour wherever necessary; the area to be protected was 561.5 square miles, and the cost of the operation was Rs. 730; no fires in the area were reported. The average cost per square mile comes to Rs. 1-4-10 against Rs. 31 per square mile for the area of 12 square miles under special protection in the division. The early burning operations were commenced in December 1924 but were not completed till March 1925; the reason given for the prolonged operations was that the grass was too green to be burnt. During the course of the operations the Conservator and the District Forest Officer inspected the early burnt areas in Pecheruvu, Bairluty and Gundlabrahmeswaram ranges, and found that large patches of forest had either not been treated at all or had been badly burnt. Subsequently, the Extra Assistant Conservator and the Assistant Conservator inspected and found the bad work rectified.

On the whole, the early burning in the Nallamalais cannot be said to have been successful even though few accidental fires were subsequently reported. This result was due to the fact that the forests were early burnt too late, and though the burn was therefore more or less complete it did, in many cases, nearly as much damage as an accidental fire would have done.

In *North Cuddapah*, the system of early burning which replaced the orthodox system of fire protection by cleared lines in the Nallamalais and Lankamalais in the previous year was extended to the rest of the reserves during the year. The operations commenced in the last week of December and were closed about the 12th February. Except in the Nallamalais there were no accidental fires. Out of 372 square miles attempted to be protected,

370 were successfully protected at a cost of Rs. 694, i.e., at Rs. 1-14-0 per square mile.

In *South Cuddapah*, all the reserves except Chitvel and its extension and Vathalur were subjected to 'early burning'. 431 square miles or 99.85 per cent of the area attempted to be protected was successfully protected at a cost of Rs. 889 or Rs. 2-0-11 per square mile. Though the area burnt during the year was larger than in the previous year, it has still to be stated that the protection was satisfactory.

In *West Cuddapah*, the area attempted to be protected was 462 square miles and the area burnt 241 acres. The early burning operations of the previous year extended up to the middle of April, with the result that the burn was too fierce in many cases. During the year under report the early burning operations commenced in the middle of January and closed before the end of February; this is an improvement on the old system, but is in itself by no means perfect as it involves leaving unburnt comparatively large areas of rather green grass. The cost, Rs. 1,262 for 462 square miles, works out to Rs. 2-11-9 per square mile; this rate is much too low if the operation is to be conducted as it should be early in the season when the grass is still sufficiently green to exclude damage to saplings and seedlings.

In *Chittoor*, early burning operations were started by the middle of December and completed by the end of January 1925. Of the areas proposed to be early burnt some in Chittoor and Chelama ranges, where there was no grass owing to excessive grazing, were omitted; otherwise, nearly all the reserves proposed for early burning were successfully burnt. Of 134 square miles treated, 80 was under early burning and the balance under orthodox protection. The result was satisfactory as the number of accidental fires and the area burnt was greatly reduced compared with the previous year. The cost of burning in this district worked out to Rs. 4-12-0 per square mile.

20. The system of early burning does not seem to be unpopular with graziers as no complaints were received during the year in any of the districts of the Circle.

(c) *Protection against cattle.*

21. The following table compares the area closed and opened to grazing during the two years—that under report and the previous year :—

	1923-24. Square miles.	1924-25. Square miles.
Closed to all animals—		
Whole year	1,325	782
Part of year	41	526

	1923-24. Square miles.	1924-25. Square miles.
Open to all animals—		
Whole year	5,129	5,172
Part of year	3	...

The reduction in the area closed during the whole year was due to the opening of closed areas of Gudem, Moricheruvu and Markapur range of *East Kurnool* and of the whole of Gundlakamma and the Nallamalais of Chelama and Giddalur ranges of *South Kurnool* during July and August 1924 with a view to mitigate distress on account of fodder famine in the adjacent villages.

The increase in the area opened to grazing for the whole year was also due to several reserves in Bellary and Anantapur ordinarily closed to grazing being thrown open for the whole year owing to scarcity of fodder in the adjoining villages.

In *Bellary*, the concession of free grazing in the open areas of Hospet taluk was extended by the Collector up to 30th June 1924 and in the closed areas of Bellary and Mincheri reserves of Bellary taluk up to 31st July 1924 owing to scarcity of fodder in the villages. In Rayadrug taluk free grazing was allowed in Rayadrug, Mallapuram, Dharmapuri and Bandanakal reserves up to 30th September 1924 for the same reason. The unplanted area of Moka plantation which was closed to grazing was also thrown open to grazing on permits from January 1925.

In *Anantapur*, all the reserved forests in the district except those under cultural operations were thrown open to free grazing till the end of December 1924 on account of drought.

In *North Cuddapah*, the extent to which the opening of the pentas in the reserved forest is appreciated by the people is apparent from the fact that the penning fees realized during the year rose to Rs. 2,023-8-0 from Rs. 1,567 of the previous year, in spite of the decrease in the total number of foreign cattle that came from *Nellore*. The local cattle owners who pay annas three per cow as grazing fee did not hesitate to pay an additional fee of As. 4 per cow for the privilege of penning them in the reserved forest. It is the large herds of local cattle that were penned inside the reserved forest that are responsible for the increase in the penning fees.

In *South Cuddapah*, the continuance of the penning system has not interfered to any serious extent with the conservancy of tree growth, and is much appreciated by the people.

In *West Cuddapah*, the system of penning cattle in the pentas on the hills continued to work satisfactorily. The period of penning is for five months, from 1st August to 31st December.

In *Cuddapah district*, the grazing fee for local cattle is very much too low. The payment of As. 3 for the feeding of a cow for the greater part of a year cannot be said to be in any way comparable to the benefits received. To this low rate the deficit working of the Cuddapah forests is largely attributable. The question of raising the fees to a reasonable figure is being considered.

22. In the whole Circle the number of cattle for which grazing permits were purchased increased from 595,932 to 598,989 cow units. The increase was due chiefly to the reduction of grazing fees in Chittoor. There was a decrease from 59,101 to 56,155 in the number of cattle impounded. This decrease was contributed to by Bellary, Anantapur and Chittoor, and was due to the free grazing allowed in the former two divisions and to the reduction of grazing fees in the latter.

23. The following statement compares the grazing revenue and the incidence of grazing during the year under report with that of the previous year :—

District.	Grazing revenue.			Incidence of grazing per cow unit in acres.	
	1923-24.	1924-25.	Difference.	1923-24.	1924-25.
	Rs.	Rs.	Rs.		
Bellary	28,155	24,850	— 3 305	3 97	2 9
Anantapur	41,686	9,224	— 32,462	4·5	3·25
Kurnool East	49,153	42,599	— 6,554	6·03	9 09
Kurnool South	19,049	19,587	+ 538	6·8	10·61
Kurnool West	38,867	39,497	+ 630	5·27	5 23
Cuddapah North ..	23,389	22,689	— 700	5·3	5 5
Cuddapah South ..	9,211	7,867	— 1,344	7·9	8·3
Cuddapah West ..	27,051	25,727	— 1,324	5 5	5·1
Chittoor	42,219	22,362	— 19,857	5·45	3·61
Total ..	2,78,780	2,14,402	— 64,378		

Grazing revenue.

24. The decrease is contributed to by all the districts except *South* and *West Kurnool*.

It was mainly due to the free grazing allowed in *Anantapur* district till the end of December 1924 and to the reduction in the grazing fee from eight to three annas per cow unit in *Chittoor* district.

The concession of free grazing allowed in *Bellary* and *East Kurnool* divisions for part of the year and the non-advent of foreign cattle to the three *Cuddapah* divisions on account of want of timely rains also contributed to the decrease.

25. As regards grazing incidence, there was a fall in *East* and *South Kurnool* and *South Cuddapah*. It was due in the former two districts to the throwing open of closed areas to the extent of 269 and 249 square miles respectively for part of the year. In *South Cuddapah* it was due to a fall in the number of cattle grazed and to the increase in the areas thrown open to grazing. The increase in *Bellary* and *Anantapur* was due to free grazing allowed for part of the year. The increase in *Chittoor* was due to the reduction of grazing fees from eight to three annas per cow unit.

(d) *Protection against injuries from natural causes.*

26. In *North Cuddapah*, climber cutting was done over a small area by the students of the Vernacular Training School.

In *West Cuddapah*, creepers which retarded the growth of the principal species were cut by the subordinates while marking standards in the improvement and coppice with standard coupes. In the Mudumpad slopes of Sanipaya range sambur were found to be damaging the young poles of *Hardwickia binata*.

Destruction of creepers by the application of Atlas preservative was found to be ineffective and costly, as the creepers threw out shoots below the place where the solution was applied.

In *Chittoor*, the cutting of climbers interfering with sandal and other valuable species was done by subordinates free of cost in all ranges.

A sum of Rs. 763-7-0 was spent in eradicating lantana in the Horsleykonda reserve. The work has been successfully carried out.

The area cleared of noxious growth round Mamandur village in connection with the sanitation scheme was kept free from prickly-pear.

CHAPTER III.—SYLVICULTURE.

SECTION 1.—FORMATION AND REGENERATION OF FORESTS.

(i) *General Progress of areas under Regeneration.*

27. *Bellary.*—Natural regeneration of the more valuable species in all the blocks was fair; *Hardwickia binata* regenerated itself naturally in Kupgal plantation and Gunda reserve, *Dolichandrone crispa* in Kakuppi, and teak in places in Bandri, Somalapuram and Kariyaganahalli reserves.

Anantapur.—No new plots were opened in the sandal areas of Amagondapalaiyam reserve in Bukkapatnam range; such of the existing plots as were not fully stocked were re-dibbled thrice during the year, but the operation was not a success, probably

due to deterioration of seed which was of the previous year's stock. No operations were carried out in the Madakasira range, as practically the whole of it is ear-marked for panchayat management.

East Kurnool.—Generally speaking, reproduction by seed and the survival of the one year old seedlings already on the ground was disappointing; though the natural regeneration of certain species, including *Chloroxylon Swietenia, Pterocarpus Marsupium, Anogeissus latifolia. Terminalia tomentosa, Hardwickia binata* and, in some places, rosewood was fair in Morricheruvu, Gudem, Markapur and Cumbum ranges.

South Kurnool.—In Gundlakamma range a plot of sixteen acres was clear-felled of all growth, to observe the results of natural regeneration under various conditions, which are being induced. In Chelama range a small area of especially good natural regeneration of 'Yepi' (*Hardwickia binata*) was selected, near Chelama rest house, and measurements were taken with a view to watching the annual increment of this species.

About half an acre of good young teak coppice was selected at Malakondapenta, and all the saplings thereon were enumerated, with a view to watching the effect of early burning on them.

West Cuddapah.—Generally speaking, the year was a fair one for reproduction by seed and survival of seedlings.

Red sanders coppice shoots have come up well in the improvement coupes felled during the year and *Chloroxylon Swietenia* and *Anogeissus latifolia* in the fuel coupes of Konarazupalli reserve.

A fire occurred in the Idupulapaya palmyra plantation which burnt about 400 acres. This cleared the area of all noxious growth and the fallen debris of dried leaves, branches and the refuse of fellings, with the result that plenty of palmyra seedlings came up in the burnt area after the rains. All these seedlings are doing well and they have survived the hot weather.

In Sanipaya range natural reproduction of *Hardwickia binata* and *Soymida febrifuga* was good.

(ii) *Establishment of reproduction under working plans and schemes.*

(a) Mainly natural.

28. Natural regeneration was good throughout the Nallamalais, though it was not a first-class seed year.

In *Cuddapah* and *Chittoor* the natural regeneration of Red Sanders was not as good as usual.

In *Chittoor*, sandal is spreading rapidly, though, owing to unfavourable climatic conditions, the mortality among one or two year old seedlings is higher than it should be.

(b) Mainly artificial.

29. Throughout the Nallamalais artificial regeneration was stopped as it had proved expensive in previous years without showing corresponding results. A special Sylvicultural Officer has now been installed for the purpose of studying the question of regeneration and no considerable expenditure will be made until the results of his experiments are known.

In *West Cuddapah* artificial regeneration was confined to the sowing of Red Sanders seeds in blanks in the felled coupes.

(c) Afforestation.

The afforestation of certain abandoned pentas lying in the middle of working circles in the *Cuddapah* Palakondas was taken in hand. In Chenalabylu penta ten acres was ploughed and sowed with Red Sanders, *Margosa* and *Albizzia Lebbek*. The resultant germination was 80 per cent in the case of *Albizzia Lebbek*, 60 per cent in the case of Red Sanders and 50 per cent in the case of *Margosa*. Necessary weeding in the wet weather, and watering in the hot weather, was undertaken, and at the end of March there were 1,182 seedlings in all in the ten acres treated. If these survive another hot weather, the afforestation attempted may be looked upon as successful.

(iii) *Plantations and other forms of Regeneration not under Working Plans and Schemes.*

30. Form 75-B furnishes necessary particulars under this head.

Bellary.—The Moka plantation, formed some twenty years or so ago, under the orders of Mr. A. W. Lushington, for the purpose of fixing the sand on the bank of the Hagari river which threatened to destroy the cultivation behind it, is doing well. Various species were tried, and of these *Sissoo* is doing best and casuarina worst. The latter has reached the limit of its growing powers in this area, and is dying and falling, to the danger of other growth. All trees of this species are therefore being cut out, and a satisfactory contract has been entered into with the Kolar Gold Fields for the supply of pit props of this species. The resultant blanks will be regenerated with *Sissoo* by means of root-suckers induced by the cutting of shallow trenches—a method that has been proved to be successful in this locality.

West Kurnool.—A Ranger was employed on special duty to survey the old teak plantations. The work is in progress.

South Cuddapah.—The Kodur Red Sanders plantation is in a flourishing condition. It requires thinning, and probably the removal of a part of the crop would stimulate the growth of the

trees left and at the same time produce some welcome revenue. Under-planting with Red Sanders in plot No. 1 undertaken during the rainy season was not very successful, owing probably to the fact that this species is a pronounced light demander, and will not thrive as an 'underwood'.

West Cuddapah.—An attempt is being made to establish propagation centres for sandal in this district. For this purpose, plots one square chain in extent are selected in suitable localities and sown with sandal seed. Twenty-three such centres were opened and 175 lb. of sandal seed sown in them. But unfortunately, practically all the seedlings died during the hot weather.

Twenty-six seedlings in Nirukona of Ganganapalle range, referred to in last year's administration report, are doing well and are some six feet in height.

In the established sandal plantations at Pullalamadugu and Amba-Bhavi the plants are reported to be flourishing.

(iv) *Tending.*

31. *South and West Kurnool.*—The 'Regeneration coupes' at Isukagundam and Gundlabrahmeswaram were weeded and tended.

East Kurnool.—Thinnings were undertaken in the teak plantations at Peddachama and Pedda Mantrala. Weedings were made in the 'Emergency coupe' at Chinna Mantrala where stump planting had been done.

South Cuddapah.—Tending of the felled coupes in the Improvement Felling Series was continued.

All naturally felled fuel coupes were fenced by the contractors.

Clearing noxious growth was undertaken in all the felled coupes of the previous year.

Chittoor.—Creeper-cutting and removal of harmful shade is being regularly attended to in the sandalwood areas of this district.

(v) *General.*

32. *Anantapur.*—Sandal is spreading naturally in the Kaikati reserve of the Madakasira range.

South Cuddapah.—Thinnings were carried out over 3,900 acres of the old worked coupes in Balapalle and Kodur ranges. The cost was about covered by the sale of the produce obtained.

Dibbling of sandal seeds in accordance with Mr. Wood's scheme was not successful, mainly due to drought.

The teak planted at Kangamadugu in Balapalle range still survives, but is not in a promising condition. The introduction of

exotic species in these forests is not being continued as it is of doubtful utility, since certain of those species which grow naturally are of such great value.

West Cuddapah.—In felled coupes in the Improvement Felling Series creeper-cutting was undertaken by the subordinates.

Chittoor.—Lantana clearing at Horsleykonda was continued; the operation is cheap and successful. The area thus cleared is now being dibbled with seeds of various species, in order to cover the ground and provide hosts for the sandal trees that already exist.

Section 2.—Tending of the Growing Stock.

33. *East Kurnool.*—Creeper-cutting was undertaken over an area of 400 acres. Removal of prickly-pear was undertaken on an area of 10,000 square feet in Chintala of Gudem range.

South Kurnool.—The clear-felling system at Isukagundem was abandoned in favour of true 'Improvement fellings' combined with 'Selection' of mature trees. The preparation of a working plan for this area was commenced.

Chittoor.—Improvement fellings, for the benefit of Red Sanders and other timber-yielding species, were carried out in four coupes of the Mamandur working circle, felled coupes were fenced, and creepers were cut and removed by subordinates. Thinnings were made among the coppice shoots of timber species in certain felled coupes as an experimental measure.

CHAPTER IV.—EXPLOITATION.

(a) System of Management.

(i) *Major Forest Produce.*

34. The subjoined statement shows the total area under working plans and the different systems of management in force during the year:—

Sylvicultural system adopted.	Area in square miles.	Percentage of total area under each method.
Clear felling	39	3 3
Simple coppice	139	11·8
Coppice with standards	327	27 7
Improvement fellings	135	11·5
Selection fellings ...	105	9 0
Area under working plan but not for extraction of major produce.	433	36·7
	1,178	100·0

East Kurnool.—In extracting timber in all ranges except Cumbum, a modified selection system was adopted by which all dead, dying and mature trees were removed. 'Emergency coupes' (i.e., coupes opened to provide work for Chenchus when no other work was available) were felled on the clear-felling system; so also the Tummalapenta and Utla coupes of Cumbum range opened for local supply. Somidevipalli fuel coupe of 50 acres was worked on the 'Coppice with Standards' system.

South Kurnool.—One coupe of 17.6 acres in Sirvel range and one coupe of 16 acres in Gundlakamma range were clear felled for purposes of artificial regeneration.

West Kurnool.—Six 'Emergency coupes' were worked under the 'Simple coppice' system mainly to provide work for Chenchus; and two coupes under the 'Coppice with standards' system. The felling of these 'Emergency coupes' in both *East* and *West Kurnool* has now been stopped, and simple working plans for the various 'Chenchu working circles' necessary are being prepared.

Chittoor.—In addition to the 15 coupes covered by working plans or sanctioned schemes, 12 others were worked under simple coppice for small timber and fuel.

Unregulated fellings were conducted in some scattered areas of *West Kurnool* division by issuing permits to remove palmyra trees and by cutting and converting dead timber into spokes and felloes and rafters to meet the requirements of the public. In *North Cuddapah*, in cases in which free grants of forest produce were sanctioned from portions of reserved forests remote from coupes under working, an area was demarcated by the Range Officer and the felling by free grantees was restricted to it.

(ii) *Minor Forest Produce.*

35. There was no change in the method of working. Bamboos and other minor forest produce were collected by the Chenchus under departmental supervision in the Nallamalais of *East* and *West Kurnool* divisions; in other divisions, they were leased out to contractors.

No departmental collection of Nux-vomica was made in the *Cuddapah* divisions; but the stock of the produce collected departmentally in the previous year in the *North* and *West Cuddapah* divisions was sold for Rs. 339 and Rs. 1,368 respectively. In *South Cuddapah*, the right to collect Nux-vomica in one range only was sold, as the crop in the other ranges was poor. In *Chittoor*, the leases of Nux-vomica and Tangedu bark were sold for three years; Rela bark was not sold during the year, being unfit for exploitation. Only 583 lb. of Nux-vomica were collected against

6,990 lb. in the previous year; the short collection was mainly due to a slump in prices.

In *Bellary,* fodder grass also was leased out to Mr. H. W. Howes, over an area of 7,422 acres in Mincheri, Bellary, Ubbalagundi and Marutla reserves. In *South Kurnool,* the Military Grass Farm did not continue their hay operations during the year; but a sum of Rs. 1,492 was adjusted towards the bills due for 1923-24. In *Chittoor* the Military Grass Farm removed 169,152 lb. of hay from the Musalimadugu Extension reserve of the Palmaner range.

Free removal of fodder and thatch grass was generally allowed from reserves as usual for *bona fide* domestic purposes. A proposal made by the District Forest Officer, North Cuddapah, to levy a nominal fee of As. 5 per cart-load of grass in order to meet the cost of maintenance of the forest roads which are largely used and badly cut up by the grass carts, was vetoed by the Collector. It is clear that removals by carts must be stopped, as a large quantity of grass which is obviously not for *bona fide* domestic consumption but for sale, is thus removed; and the passage of the numerous carts over the forest roads necessitates considerable expenditure on road repairs; and, further, the fact that these carts are able to roam about the forests at their will, and then leave them with a great load of grass, makes the theft of Red Sanders timber too easy. Steps are being taken to put a stop to this abuse.

In the *Cuddapah* divisions, about 4,477 cart-loads of green leaf manure were removed against 1,165 in the previous year.

This was owing partly to early rains but chiefly to the fact that the seigniorage rate had been reduced from Rs. 2 to Re. 1.

The damage done to the forests by this enormous defoliation is very great. The concession made to popular clamour is to the interest of neither the public, as the forests are being damaged, nor the cultivators, as they are rapidly using up all the available material; complaints have already been received that the distances from which the leaves have to be brought have now become too great.

Twenty-six cases of illicit removals of green leaf manure were detected against one in the previous year in *South Cuddapah.*

(b) Agency of Exploitation.

(i) *Departmental Agency.*

(1) Major Produce.

36. Departmental operations for the extraction of timber and fuel were conducted in the *East* and *West Kurnool* divisions, to give sufficient employment to Chenchus. In *South Kurnool,* a

second coupe was worked for timber in Gundlakamma range. The exploitation of this forest is now being regularised by the preparation of a simple working plan, which work the District Forest Officer is undertaking in addition to his other by no means light duties. In *Bellary*, 447 casuarina trees were felled, of which sixty were converted into poles for supply of a sample consignment of pit props to the Kolar Gold Fields. The materials obtained from the side branches, etc., amounting to 645.78 c.ft. were auctioned. In *South Cuddapah* as there was no offer for the purchase of standing growth in three Improvement Felling Series, they were worked departmentally. The dead and dying Red Sanders trees in Kodur Red Sanders plantation were extracted departmentally.

Other items collected departmentally were obtained from the clearing of boundaries or were specially felled for departmental works.

(2) Minor Forest Produce.

37. As mentioned above, bamboos and other minor forest produce were collected by Chenchus under departmental supervision in the Nallamlais of *East* and *West Kurnool* divisions. A small quantity of bamboos, thatch grass, etc., were collected in other divisions for departmental works.

(ii) *By Purchasers.*

38. The bulk of the exploitation of major and minor forest produce was effected by contractors, lessees and permit-holders.

(iii) *Free Grantees.*

39. Free grants were made in all the divisions (both from reserves and unreserves) chiefly to rebuild houses destroyed by fire. In *Bellary*, a free grant of 3,615 c.ft. of timber, valued at Rs. 1,479, was made for reconstructing houses washed away by floods in the Tungabadra river. The other items of free grants relate to the construction of police talaiyari thana huts in *Anantapur* and *West Cuddapah*, and to the removal of metal and gravel by the Public Works and Local Fund contractors for Government and Local works in *Chittoor* district.

The following statement shows the quantity and value of free grants :—

Timber.		Bamboos.		Grass and grazing value.	Other minor forest produce value.	Total.
In thousands of cubic feet.	Value.	Number.	Value.			
	Rs.		Rs.	Rs.	Rs	Rs.
59	10,722	41,374	446	91	109	11,368

(iv) *Rights and Privileges.*

40. The Chenchus of the *Kurnool* divisions availed themselves of the concessions admitted at forest settlement, viz.: (1) removing timber for their huts, (2) enjoying minor produce and (3) grazing their cattle numbering 814 buffaloes, 1,416 cows and 2,405 goats in the reserves without payment of fees.

Two villages in the *North Cuddapah* division have the right of free grazing over an area of 820 acres in the Lankamalai reserve. Two other villages are allowed to graze 200 cows and 575 sheep at concession rates of one anna per cow and six pies per sheep.

Free grazing for 559 cows and bulls was allowed in the Settigunta reserve of *South Cuddapah* division.

In *West Cuddapah* division, 222 bulls belonging to departmental contractors working in the Palakondas of Vontimitta range, were allowed to graze at the concession rate of 1 anna 6 pies per bull. This has been allowed since 1895.

(c) Outturn and Sources of Forest Produce.

Agency of exploitation.	Timber in thousands of cubic feet.		Fuel in thousands of cubic feet.		Bamboos value.		Minor forest produce and grazing value.	
	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.
					Rs.	Rs.	Rs.	Rs.
1. Government ..	108	112	219	707	19,086	24,438	16 106	11,627
2. Purchasers	854	879	4,808	3,686	50,469	50,956	5,27,921	5,19,650
3. Free grantees ..	53	59	..	..	504	446	360	200
4. Right and privileges holders.	1	..	154	1	..	1	4,124	3,816
Total ..	1,016	1,050	5,181	4,394	70,059	75,841	5,48,511	5,35,293

41. *Departmental agency.*—The increase under departmental removals of fuel and bamboos was due to the necessity of providing more works for Chenchus on the extraction of this produce rather than on other works in *West Kurnool* division; and to the conversion of a large quantity of material unfit for timber into fuel in *South Cuddapah* division.

The decrease under minor produce was due to the poorness of the tamarind, Nux-vomica and soapnut crops.

42. *Private agency.*—The decrease under fuel was due to the lower number of coupes worked in *South* and *West Cuddapah* divisions; to the smaller quantity of fuel extracted by contractors from the fuel coupes in *Anantapur* on account of poor growth; and

to the introduction of 'Sindewahe' furnaces for sugarcane boiling in *Chittoor* district; in these furnaces waste material is burnt instead of wood fuel.

The decrease under 'Minor forest produce' was due to the low amounts fetched on account of the poor crops; to the non-sale of Rela bark in *South Cuddapah* division.

The fall under grazing is due to the reduction of grazing fees in the *Chittoor* district; to allowing free grazing in all the reserves, except those under cultural operations, in *Anantapur* district; and to the failure of foreign cattle to resort to the *Cuddapah* divisions on account of want of rains.

The other differences fall within the normal limits of fluctuation.

CHAPTER V.—FINANCIAL RESULTS.

43. The subjoined statement compares the financial results of the year with those of the previous year and with the previous quinquennium :—

	1924-25.	1923-24.	Average of the preceding five years.
	Rs.	Rs.	Rs.
Revenue	9,09,809	9,40,551	9,76,832
EXPENDITURE.			
B. Conservancy and Works	1,70,467	1,80,546	2,28,229
C. Establishment and Contingencies	7,17,012	7,18,799	6,20,694
Total ..	8,87,479	8,99,345	8,48,923
Net results ..	+ 22,330	+ 41,206	+ 1,27,909

44. During the year the gross revenue decreased by Rupees 30,742. It was chiefly due to free grazing being allowed in *Anantapur* till the end of December 1924, and to the reduction in the grazing rate from annas eight to annas three per cow unit in *Chittoor*. As compared with the average of the preceding five years there was a decrease of Rs. 67,023. The net surplus of the Circle was Rs. 22,330.

45. Of the gross receipts—

24.9 per cent was derived from major produce.
23.3 per cent was collected from grass and grazing.
34.6 per cent was contributed by minor forest produce.
8.2 per cent was derived from bamboos, and the balance
9 per cent was made up by miscellaneous items.

B. Conservancy and Works.

46. The expenditure was less by Rs. 10,079 than that of the previous year and was due—

(1) to having given up permanent demarcation, and fire protection operations as being unnecessary in *Bellary* and *Anantapur*;

(2) to the comparatively small expenditure on Permit Issuing Officers' commissions on account of the free grazing allowed in *Anantapur;*

(3) to the small expenditure on the collection of minor forest produce in *East Kurnool* owing to the comparative failure of the crop; and

(4) to the postponement of certain works in *North* and *West Cuddapah* and *Chittoor*, and to the reduction of watchers and tannadars in these divisions.

C. Establishments.

47. There was a decrease of Rs. 1,787 chiefly due to the reduction of Foresters and Forest Guards in *Chittoor* and *North Cuddapah* divisions and to the reduction of clerical staff owing to the proposed amalgamation of Kudligi and Harpanahalli ranges in *Bellary* district.

48. The financial results of each division are dealt with below taking into account the direction charges apportioned to the district —vide Form No. 83.

49. There was a surplus in the divisions of *Bellary, Anantapur* and *South Kurnool* as detailed below :—

Bellary	..	Rs. 46,093 as compared with last years' surplus of Rs. 42,815.
Anantapur ...	...	Rs. 45,541 as compared with last year's Rs. 50,726.
South Kurnool	...	Rs. 11,092 as compared with last year's Rs 10,678.

West Kurnool should really also be included in this category as it is the debit of Rs. 15,000 spent on *Chenchu management* which reduces this district's true profit of Rs. 11,000 and odd, to a loss of Rs. 4,000. In the same way *North Cuddapah* was actually run at a profit of Rs. 2,000 (approximately), but the debit of the whole cost of the Vernacular Training School, some Rupees 10,000 reduces this profit to a loss of Rs. 8,000.

The following divisions did not work at a profit :—

East Kurnool minus Rs. 25,994.—This was due to the lower revenue derived from timber, minor forest produce and grazing,

and to debiting the pay of teachers of Chenchu schools, and expenditure on scholarships, etc., to 'Forests'. The decrease under timber was due to most of it having been collected in the last quarter and therefore not having been sold; that under minor forest produce to poor crops of Nux-vomica, soapnut and tamarind; and that under grazing to concession of free grazing owing to drought.

West Kurnool minus Rs. 4,465.—As emphasized above the surplus in this division was consumed by debiting the establishment charges of Rs. 15,690 for management of Chenchus to Forest expenditure. If this amount were deducted the division would have worked at a profit of Rs. 11,225.

The position is greatly improved as compared with last year, when the deficit was Rs. 14,975.

North Cuddapah minus Rs. 8,198.—As indicated above, this division worked at a loss only on account of debiting the whole cost of the Vernacular Training School, amounting to Rs. 10,155, to it. As the school is for the benefit of the whole Circle, the deficit should be divided among all the districts concerned. This is however not done in practice. Last year the deficit was Rs. 17,578.

South Cuddapah minus Rs. 35,366.—The large establishment charges account for the working of this division at a loss. Steps have been taken to reduce the deficit, which is, however, rather over Rs. 3,000 less than it was last year.

West Cuddapah minus Rs. 379.—The deficit is small. As compared with the previous year, the revenue increased by Rs. 3,193 and the expenditure decreased by Rs. 15,810.

Chittoor minus Rs. 3,371.—This was due—

(1) to the reduction in the rate of grazing fees from annas eight to annas three per cow unit;

(2) to want of demand for fuel coupes in Madanapalle and Palmaner ranges and to the general absence of demand for fuel consequent on the introduction of the Sindewahe furnace for sugarcane-juice boiling; and

(3) to the heavy fall in compounding fees due to the limitations placed on the District Forest Officer's powers in grazing cases and to the transfer of several reserves to panchayat management.

In spite of the strictest economy in expenditure on both works and establishment, the considerable usual net profit has been converted into a loss, owing to the concession made to one class of the public the graziers.

50. The outstanding revenue at the close of the year was Rs. 1,44,612, of which Rs. 1,27,009 is due in 1925-26.

The estimated value of timber and other produce at the sale depots at the close of the year was Rs. 27,159 against Rs. 8,268 at the commencement of the year. The increase was due to the large quantity of timber felled, but not sold in Gundlakamma range, of *South Kurnool*, owing to difficulty of transport, and to the fall in demand towards the end of the year.

CHAPTER VI.—RESEARCH AND EXPERIMENTS.

(a) Research.

51. There was no research during the year in this circle. An Extra Assistant Conservator, Mr. Kesava Vittal, has now been appointed as Special Sylvicultural Officer for investigating the most economical methods of regenerating artificially such blanks as occur in the worked coupes of the Nallamalais forests.

(b) Experiments.

52. *Bellary.*—In the Moka plantations trenches were dug round *Sisso* trees for the purpose of obtaining regeneration by root-suckers, with marked success. It was found that shallow trenches were quite as efficacious as deeper ones.

Anantapur.—An experiment in the artificial introduction of *Cassia fistula* (Tangedu), in Golla reserve, which was proving a marked success, has had to be abandoned, owing to the disforestation of that reserve.

West Kurnool.—Experiments in stumping teak were tried at Pecheruvu. Stumps were put out in July, and showed 86 per cent success in October. Amongst these there had been some casualties, though not many, by the end of March. Definite results are not yet obtainable.

North Cuddapah.—The sample plots in Jothi, Pichireddibhavi and Sancherla Improvement Felling Series were maintained during the year.

Chittoor.—Experiments were undertaken at Venkatagirikota to test the efficacy of thinnings in sandal areas where insufficient hosts were present. Cutting flush with the ground and applying Atlas solution to the cut stumps, and also uprooting the trees to be removed, were tried. No results have as yet been obtained.

CHAPTER VII.—ADMINISTRATION.

53. *Changes in territorial jurisdiction.*—The proposal to abolish the Third (Madras) Circle and to institute a new Working Plans Circle with headquarters at Ootacamund was given effect to after the close of the year. On account of the abolition of the

Third Circle, Nellore and Sathiavedu range of the Chingleput division were transferred to the First Circle, *North Vellore* and the remaining portion of the *Chingleput* division to the Fourth Circle, and the remaining divisions of the Third Circle, viz., the three *Cuddapahs* and *Chittoor* to the Second Circle.

54. The officers who held charge of the Circle are shown below :—

	Period.	
	From	To
T. Clear, Esq. ...	1st April 1924...	27th September 1924.
C. C. Wilson, Esq. ...	28th September 1924.	31st March 1925.

55. *Tours.*—During the year the Chief Conservator toured in the forests of Chelama and Gundlakamma ranges in *South Kurnool* division and visited Gundlabrahmeswaram of *West Kurnool* division. He also spent a short time at Horsleykonda in Madanapalli range, and in the Red Sanders forests in Mamandur range of *Chittoor* district.

The various Conservators in charge of the old Second Circle and of the old Third Circle toured in all the divisions of the present Second Circle, during the year and wrote inspection notes, wherever there was matter of sufficient importance for record. All the District Forest offices were inspected during the year. Considerably more than the minimum time prescribed was spent in camp.

56. *District Forest Officers.*—All District Forest Officers toured sufficiently. All Range Offices were inspected during the year.

57. *Audits.*—All the District Forest offices were inspected by the Audit Officers with satisfactory results.

58. *Recruitment and training.*—Mr. V. S. Kuppuswami, Assistant Conservator of Forests, joined the department, on first appointment, in December, and was attached to the Conservator for training.

59. *Recruitment to the Madras Forest College.*—One First-grade Forester from *East Kurnool* was deputed to the Madras Forest College for the 1924—26 course.

60. *Recruitment to the Vernacular Training School.*—The 1924 session held in *North Cuddapah* was wound up in August and has been separately reported on.

The current year's session in the same division began in February 1925. Ranger S. Ramachandra Ayyar holds the post of Senior Instructor, and Ranger B. H. Anandathirtha Rao that of junior instructor, both being men with Honours certificates. The session

opened with 30 students—3 Foresters and 27 Forest Guards—on the roll. The school was inspected by the District Forest Officer twice. The health of the students is satisfactory throughout.

Four Forest Guards from *East Kurnool* were deputed to the school at Russellkonda for the 1925 session.

61. *Health of establishment including an account of measures of sanitation and casualties.*—The health of the establishment was satisfactory in *Bellary, Anantapur* and *Chittoor* and was most unsatisfactory in the *three Kurnools* and in *South Cuddapah;* it was poor in parts of *North Cuddapah* where there were complaints of fever and guinea-worm. In *Bellary* one Forest Guard died of fever, in *Anantapur* one Ranger was invalided, and three Forest Guards and one bungalow watcher died; in *South Cuddapah* one thanadar died. Two Forest Guards in *South Kurnool* and two Foresters and one Forest Guard in *West Kurnool* died of malaria. In the latter district one Forester while conducting early burning operations was badly mauled by a bear and died of wounds. In *South* and *West Kurnool* many subordinates were granted leave on medical certificates.

62. The question of improving the water-supply at Rudracode in *West Kurnool* by laying a three-inch pipe from the spring to the subordinates' quarters is under consideration. Consequent on the improvement of sanitation in Mamadur of *Chittoor* district, the health of the establishment in that place improved considerably, though malaria has not of course been completely stamped out.

The Madras and Southern Mahratta Railway have kindly undertaken to conduct similar measures of sanitation at Diguvametta in *South Kurnool* division.

63. *Work and conduct of establishment.*—The work and conduct of Rangers during the year under review was in a few cases very satisfactory, in the majority of cases normal, and in a few cases distinctly bad. A tendency on the part of these officers to endeavour to escape from ranges that for one reason or another they did not like, by means of obtaining leave on medical certificate, was largely stopped by adopting the principle of always reposting such men, after their return from leave, to the ranges from which they had escaped. On the other hand, Rangers who had served well in unhealthy or otherwise unpopular localities were, whenever possible, given a change to more congenial surroundings.

The conduct of the protective staff was on the whole fairly good, considering the low pay they get and the manifold temptations to which they are subjected.

In the districts, however, which are shortly to be handed over to the management of panchayats the conduct of these men was most unsatisfactory. This is due to the fact that they know their services are likely to be dispensed with at an early date, and they therefore do not care whether they retain their appointments or not and are concerned mainly as to the immediate profit they can make. For this reason any unnecessary delay in the formation of the panchayats is greatly to be deprecated.

CHAPTER VIII.—GENERAL.

1. Formation and Management of Panchayats.

64. One reserve in *Bellary* and one in *South Kurnool*, two in *West Cuddapah* and five in *Chittoor* were handed over to panchayats during the year. No new panchayats were formed in the other divisions of the circle.

The delay in the formation of panchayats for areas that are definitely to be handed over to them is regrettable as the morale of the subordinates in such places is deteriorating for the reasons referred to in paragraph 63 of Chapter VII above.

The Special Panchayat Officer has been reviewing the work of the panchayats once a quarter.

2. Conferences and Meetings.

65. "The Kurnool Forest Grievances' Committee" sat during the year. It consisted of the Conservator, Mr. T. Clear, as President, and M.R.Ry. K. Sarabareddi Garu, M.L.C., and M.R.Ry. Rao Bahadur C. Venkataranga Reddi Garu, M.L.C., as ordinary members. The various District Forest Officers and some influential ryots were co-opted. They visited certain forests and heard evidence at selected centres in July and August 1924, and submitted their report to Government in September 1924. The matters dealt with were grazing, supply of agricultural implements, disforestation and the formation of forest panchayats, supply of manure leaves and the standardization of compounding fees.

Such of the Committee's recommendations as Government have been able to accept have already been put in force.

Practically, the whole of the Nallamalais has been thrown open to grazing; many new pentas have been opened; penning fees have been abolished with respect to strictly local cattle, of which the definition included in paragraph 10 of the Forest Committee's report printed in G.O. No. 3020, Revenue, dated 10th October 1913, has been adopted; and special schemes for the supply of agricultural implements to local ryots, the details and conditions of which vary according to local requirements, have been introduced in all three forest divisions.

A conference of the Forest Officers of Kurnool with the Conservator as President was held in Kurnool on the 26th February 1925. Various matters were discussed and grievances aired :—

(a) It was agreed that the financial position of the forests in the district did not at the moment justify the formation of a fourth division.

(b) The importance of the preparation of simple working plans by the Divisional Forest Officers and their present staffs, for the workable areas of their divisions was agreed upon, as it was realized that a party from the newly formed working plans circle would be unable to visit the Nallamalais for several years, and it was not considered desirable to postpone the exploitation, and forego the revenue derivable from, these forests for so long.

(c) Certain alterations in the boundaries of ranges were discussed and a general agreement arrived at.

(d) The proposal to change the headquarters of the South and East divisions to Nandyal and Markapur respectively was discussed and vetoed.

(e) The unsatisfactory state of the clerical staff of the three divisions was demonstrated and proposals were made to remedy it.

(f) The perennial question of Chenchu management received lengthy consideration.

(g) The parlous condition of housing for the various Forest officials in superior service in *Kurnool* was discussed at length.

In all the above matters, necessary action was taken, and wherever possible, remedies applied.

3. Measures for improving local Supplies and Facilities.

Timber and Fuel.

66. *Anantapur.*—Attempts were made to open coupes in seven reserves for supply of fuel and small timber to the adjoining villages, but a sale was found for only three.

An attempt is now being made to form big working circles for the supply of agricultural implements on permit.

South Kurnool.—For Sirvel range a working plan was prepared; in advance of sanction the coupes of the first year were worked, in order to supply the urgent demand for fuel and small timber in that taluk.

In Gundlakamma range exploitation of timber on the selection system was started vigorously, though unfortunately in advance of the preparation of a working plan. This was necessitated by the urgency of the demand for timber in the vicinity. A working plan has now been prepared in which the area felled during the

year under review forms the first coupe. The produce, including timber in the round, and spokes and felloes, found a ready sale, on rail, in the Diguvametta depot. The quality of the timber was poor, but nevertheless the prices realized were at first very high, and compared favourably with those paid for first-class logs in *South Coimbatore* and *Malabar*. This happy state of affairs has, however, not continued; the first five or six sales satisfied the abnormal demand, which owed its existence to a timber famine that had prevailed for some years in the surrounding districts; subsequently there has merely been the normal demand to be met.

For the supply of agricultural implements and small timber, to the local populace, prescriptions were inserted in the working plans being prepared for the district, to the effect that contractors must sell such material from their coupes. If, as is possible, this system is not successful, it is proposed to issue permits for such material for each coupe in the year prior to felling.

East and West Kurnool.—A commencement was made in regulating the work in the 'Emergency coupes', which were started some years ago to provide employment for the Chenchus. Regular working plans are now being prepared by the district staffs for all such 'Chenchu working circles'. The supply of agricultural implements and small timber to the local populace was made at concession rates on the production of certificates from the Tahsildars and Deputy Tahsildars to the effect that such were required for *bona fide* domestic purposes.

North Cuddapah.—The leasing of certain coupes to the co-operative societies, at concession rates was continued. The results of two or three years working by these co-operative societies has proved successful, largely owing to the efforts of the Rev. Mr. Rumpus, of the London Mission, Cuddapah, who has devoted a great deal of time and energy to assisting the Panchamas, and other depressed communities, who are working these coupes. The result is also satisfactory from a forest point of view as, since this new medium of working has been exploited, contractors are giving better prices in auction for our other coupes that are sold in the normal manner.

South and West Cuddapah.—The wants of the local populace in the matter of fuel and small timber were met by provision in the contractors' agreements for supply at concessional rates.

Water-supply.

67. In spite of the shortness of funds available for important forest works, and of the very low rate at which grazing permits are issued, a great deal was done during the year to improve the

water facilities for cattle grazing in the forests. The results achieved are shortly enumerated below :—

Anantapur.—The local ryots were permitted to re-construct the old 'tank' in Yellutla reserve and to tap a spring in Tarimala reserve.

East Kurnool.—Two wells were repaired for the use of the public as well as the department.

Three tanks were improved in the Markapur and Rachakonda ranges for the supply of water for grazing cattle.

South Kurnool.—Similar improvements were carried out to certain tanks in Owk range.

West Kurnool.—One tank was similarly repaired in South Dhone reserve.

North Cuddapah.—A new tank was constructed at Byrenni to collect water that flows from Byrenni spring, in order to permit of the penning of cattle in the vicinity.

Repairs were carried out to a tank in the Lankamalais of Sidhout range for the use of cattle penned there.

West Cuddapah.—Three wells were repaired to supply water for grazing cattle in the hot weather.

Chittoor.—One well was repaired at State expense and two by the local populace, within the reserves, to supply water for cattle in the hot weather.

4. Timber Transit Rules.

68. *East Kurnool.*—Yeguvacherlopalle was notified under section 4 of the Timber Transit Rules, in order to prevent theft of timber from the surrounding reserved forests.

Chittoor.—The Timber Transit Rules framed for the *Chittoor* and *North Arcot* districts have not yet been sanctioned. The need of them is great, and it is hoped that a final decision may be arrived at, in the matter, at an early date. As regards the rules already existing in Chittoor, the exclusion of zamindaris from the scheduled areas is being taken advantage of by the timber thieves who remove sandalwood through them.

5. Jungle Tribes.

69. *East and West Kurnool.*—The Chenchus as usual have kept us from feeling dull. There have been one or two murders of forest subordinates by these enterprising little people, and generally speaking, considerable increase of crime, or possibly of detection of crime, it is always difficult to differentiate between the two. Eleven crimes involving fifty-five Chenchus were detected this year as against eight, involving fifteen persons, last year.

On the whole, however, they have been fairly amenable to discipline and—after persuasion in some cases—have done the work provided for them.

The industrial and educational schools maintained for their benefit have been attended in increasing numbers by the younger generation; in the former basket work, carpentry and the manufacture of carts have formed the chief subjects of instruction.

By sale of some of the baskets made by the more advanced students, at Srisailam festival, a large part of the expenditure on certain of the industrial schools in *West Kurnool* has been covered. It is amusing, and a little pathetic too, to note that even these efforts of the Forest department, to improve the condition of the Chenchus, have been used by our enemies against us, and a report has been circulated in the district to the effect that the Forest department are forcing the Chenchus to make baskets for them on payment of four pies a day. The truth being, of course, that the Forest department is put to considerable expense in providing teachers material, etc., for this work, in order to instruct the Chenchu young, and in addition have to pay the children four pies a day each as a bribe, before their graceless old parents will allow them to attend the schools.

Cultivation of lands by these people has been further encouraged and in several cases considerable advance made.

One most satisfactory result of our efforts at education is worthy of note, namely, that of the eight Chenchus who were studying in Markapur Board High School, one has now returned to the Chenchu School at Chinna Mantrala in the capacity of a teacher on Rs. 18 per mensem.

The cost of maintenance of the schools has been as follows :—

	Rs.	A.	P.
(1) Capitation allowance paid to teachers ...	681	0	0
(2) Feeding charges	1,688	14	11
(3) Cleaning charges	715	14	0
(4) Purchase of books	78	8	0
(5) Repairs to sheds	66	14	0
(6) Cost of clothing	595	0	0
(7) Cost of furniture	144	12	0
(8) Cost of establishment	5,872	15	0
(9) Construction of petty sheds	280	0	0
(10) Contingencies	5	0	0
Total ...	10,128	13	11

The problem of finding work for the Chenchus has been now largely solved by employing them in the timber-felling operations of *South Kurnool* district. Their objection to travelling the few

miles that intervene between their Gudems and the work spot have been at length overcome, and it is hoped that both they and the department will be considerably benefited by their employment in the extensive forest operations of this division.

The Forest department is the only medium that has been able hitherto to deal with the Chenchus with any success. And we are, of course, quite ready to continue the management of them and our efforts to tame them, but in these modern days, the Forest department is being organized quite rightly on commercial lines, with the result that the administration of any district which shows a loss on the year is questioned. Under these circumstances, it is clear that the expenses of administering the Chenchus should no longer be debited to the Forest department. This point of view has been placed before the Chief Conservator who is making representations to Government in the matter.

6. Mining and Quarrying.

70. *Bellary division.*—A licence for prospecting manganese ore in Gunda reserve, and another in Alagilavada reserve and a thirty years' lease for mining red earth in Joga reserve, were granted during the year. A quantity of 6,314.25 tons of manganese ore was removed from the mining area of Thummaraguddi reserve since October 1923; a sum of Rs. 395-13-0, representing royalty, and Rs. 778-10-0, representing the dead rent for the half year ending February 1925, was collected in advance pending settlement of the question of royalty. A quantity of 155 tons of old ore, lying in Thonsegeri reserve, was given by the Collector to the General Sandur Mining Company; but the amount of royalty to be recovered is still under correspondence.

South Kurnool.—The manganese mine opened last year in the North Veligondas is in good working order. An application received for prospecting for copper in Jaladurgam reserve of Owk range is under consideration.

West Kurnool.—The slab and building-stone quarries leased out for five years were worked during the year; the lease expires on the 31st December 1925; the yearly rental of Rs. 4,454 was realized.

Two lime-stone quarries were leased out in Dhone range for Rs. 560 and the revenue realized.

Two mining leases for barytes and steatite granted in previous years were worked during the current year.

A licence to prospect for barytes was issued to Mr. B. P. Sesha Reddi of Bethamcherla.

The prospecting licensees of previous years closed their operations in four cases, and no work was started in two cases; only two licensees carried on operations, prospecting for barytes and iron ore in North Dhone reserve and Veldurthi unreserve respectively.

South Cuddapah.—Of two applications for prospecting for manganese which were under consideration at the close of the previous year, one has been rejected and the other approved, and sanctioned by the Board.

7. Live-stock.

(a) *Elephants.*

71. The two baggage elephants maintained in *West Kurnool* for transporting the camp kit of officials were used during the year to a small extent for dragging timber at Isukagundam. They were untrained in this work and were reported to dislike it; but personal investigation showed that it was the mahouts and kavadis who disliked the work rather than the elephants, and matters were suitably adjusted. The elephants now do what timber dragging is required.

(b) *Bulls.*

Of the three bulls in *South Kurnool* two were sold in auction as they were unserviceable and the third died of colic. Of the five bulls in *West Kurnool* three died in March of rinderpest which was prevalent at the time. Of the above, none were replaced as their utility was doubtful.

(c) *Buffaloes.*

In *Chittoor* one of the two buffaloes had grown old and was sold, another being purchased in its place.

8. Veterinary Establishment.

72. Nil.

9. Suits.

73. The suit filed in the District Munsif's Court, Vellore, against the Tangedu bark contractor, Vati Ibrahim Sahib, for recovery of the balance due by him on account of the *South Cuddapah* contract is still pending.

In the suit instituted by the zamindar of Bangarupalaiyam in *Chittoor* district claiming certain land in the Musalimadugu forest the District Munsif's decree was adverse to the zamindar. The latter has appealed and the result is not yet known.

10. Control of Unreserved Lands by the Forest Department.

74. In the *East Kurnool* division, the general control of the unreserves of Bommilingam, Velagalapaya and Papinenipalli villages continued to rest with the Forest department.

11. General.

75. In *East Kurnool* division the man-eating tiger referred to in last year's Administration Report was shot by the Forest Range Officer of Gudem range, Mr. A. Bhaviah, and he drew the Rs. 500 reward which he thoroughly deserved.

Two Forest Guards were murdered by Chenchus during the year, as stated above in paragraph 69. In one case certain individuals were convicted of murder and sentenced to death, but they were let off by the High Court on appeal. In the other case the police have been unable to apprehend the offenders. Fresh efforts are now being made by them to do so.

In the first case, a pension of Rs. 5 per mensem for life was sanctioned by Government for the widow of the deceased Forest Guard. In the second case, the old mother of the murdered man has been recommended for a gratuity and the matter has not yet been finally decided.

Muskets and ammunition have now been supplied to many of the Forest Guards and Foresters in these wild tracts; it is hoped that this will enable them to protect themselves successfully.

12. Collectors' remarks.

76. The following forwarding endorsements were made by Collectors when transmitting District reports:—

Collector of Bellary.

Forwarded.

I think the District Forest Officer is mistaken in saying that limited demand of hay by the Military authorities accounts for the smaller outturn. The reason is that the hay was not available.

Collector of East Kurnool.

Forwarded.

I have nothing to add to the views I recently expressed on various aspects of the Chenchu problem. I do not agree with the remark in that the money now being spent on the elementary education of Chenchus is wasted. The benefit of the education the young Chenchus are receiving will appear only after a generation or two. Progress will be more rapid when Chenchus can be employed as schoolmasters.

Collector of South Kurnool.

Forwarded.

With reference to the remark that a proposal to assign some cultivable land to the Chenchus of Byrenni was vetoed lest they should go away from Byrenni where their labour is in demand, I think it is far better that the Chenchus should be encouraged to take agriculture rather than that they should be dependent for a living on labour procured for them by the Forest department.

Collector of Cuddapah.

Forwarded.

I have no remarks to offer.

Collector of Chittoor.

Forwarded.

2. The further decrease in the number of fires and in the extent burnt is very satisfactory, and I think, rightly attributed by the District Forest Officer to the vigilance on the part of the subordinate staff as well as to the comparatively short duration of the dry season. It also indicates their more cordial relations with the public.

C. C. WILSON,
Acting Conservator of Forests,
Second Circle.

BELLARY,
8th August 1925.

ANNUAL ADMINISTRATION REPORT OF THE FOREST DEPARTMENT

FOR THE

YEAR ENDING 31ST MARCH 1925

FOURTH CIRCLE

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

1. ALTERATION IN AREA.

Reserved forests.—During the year twenty-seven square miles were added due to final settlement and adoption of correct boundary. Ten square miles were disforested due to—

(1) adoption of correct boundary and erroneous inclusion of certain patta holdings, and

(2) assignment of land for cultivation.

Reserved lands.—The decrease from 51 square miles to 28 square miles is due to transfer of areas to reserved forests chiefly in *East* and *South Salem* divisions.

2. FOREST SETTLEMENT.

2. Three blocks with an area of 26½ square miles were finally settled during the year under report.

3. DEMARCATION.

3. Eleven and three-fourth miles were permanently demarcated during the year.

4. FOREST SURVEYS.

(a) *By the Survey of India.*

4. Nil.

(b) *By Madras Survey.*

5. Nil.

(c) *By Departmental Survey.*

6. The survey of fuel coupes was as usual done departmentally.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. Regulation of Management.

Preparation and control of regular working plans.

7. *Preparation.*—A working plan for all operations except sandalwood was sanctioned for the *West Vellore* division during the year and another similar working plan for the *South Vellore* division was sanctioned by the Chief Conservator after the close of the year. A scheme for the Class II panchayat areas in the *East Salem* division, a revised scheme for the sandal areas in the Dharmapuri range, *North Salem* division, a scheme for Lokkur Manakondamalai bamboo series and another revised scheme for the Shevaroys North working circle, *Central Salem* division, were sanctioned by the Conservator during the year. The scheme for working the Upper Plateau in the Valasamalai reserve, *South Vellore* division, referred to in last year's report was dropped.

8. *Control.*—The prescriptions of the following working plans were generally adhered to except for small deviations :—

(1) Tentative scheme for all fuel and bamboo coupes in Gudiyattam range and the old working plan for bamboo coupes in the other ranges in the *North Vellore* division.

(2) Sandalwood working plan for the Javadis and Yelagiris in the *South* and *West Vellore* divisions.

(3) Sandalwood working plan for the Hosur taluk, *North Salem* division, except in areas affected with spike.

(4) Preliminary working plan for the sandal areas in the other three *Salem* divisions.

(5) Working plan for fuel, bamboo, and minor forest produce in *South Vellore*, and bamboos in *West Vellore*.

(6) Sandalwood, bamboo and grazing working plan in Chitteri range, *East Salem* division.

(7) Working plan for the Kavaramalai Working Circle, revised scheme for the ten bamboo series sanctioned by the Chief Conservator, and one sanctioned by the Conservator, and a scheme for the six fuel series sanctioned by the Chief Conservator, and another for the six fuel series sanctioned by the Conservator in *Central Salem* division.

(8) Tentative schemes for working the lower slopes of hill ranges for fuel sanctioned by the Conservator in the *South Salem* division.

Almost all the forests covered by working plan in the *Chingleput* district have been transferred to panchayat management during and after the close of the year except 80.28 square miles which

was under the control of the Forest department and worked under the provisions of the working plan. The prescriptions of the Hosur sandalwood working plan for the seven felling series in Denkanikota range in the *North Salem* division were suspended as in last year owing to the prevalence of spike, the whole staff being fully engaged in the extraction of spiked trees. The other working plans are either obsolete or not worked for want of demand.

2. Communications and Buildings.

9. Form 70 shows the length of the roads constructed and the expenditure incurred on new works and repairs to roads, buildings and other works.

(a) *Roads and Bridges.*

The cost of new works and repairs during the year was Rs. 3,275 and Rs. 10,200 against Rs. 3,967 and Rs. 12,121 respectively, in the previous year. The new works undertaken were the construction of a cart-tract in the Kambakkam reserved forest, *Chingleput* district, the completion of the diversion road from Denkanikota to Aiyur, *North Salem* division, construction of an approach road to the inspection shed at Sanniyasimalai, *Central Salem* division, metalling Kalapatti-Pillayarnatham road and Uppilipuram-Sengattupatti road, and the completion of a gap of about two furlongs in the Mavar-Thammampatti road in the *South Salem* division. The following new works were also undertaken during the year :—

West Vellore.—The alignment of Mandarakuttai-Kavalur and Vasanthapuram-Kavalur cart-track, construction of new culverts on the Gillman road, improvement to Melpat-Paramanandal bridle path and the construction of a cart-track from Local Fund road to Paramanandal Subordinates' quarters.

(b) *Buildings.*

10. The expenditure on new buildings and the maintenance of existing ones (including the pay of watchers) during the year was Rs. 11,060 and Rs. 12,177 against Rs. 11,463 and Rs. 14,534 respectively in the previous year. The important new buildings constructed were—

South Vellore.—(1) Completing the construction of Range Officer's quarters at Santhavasal.

(2) Completing the construction of subordinates' quarters at Nadanur.

West Vellore.—(1) Completion of the Range office at Alangayam.
(2) Part construction of Range Officer's quarters at Alangayam.
(3) Extension to the sandalwood godown at Tirupattur.

North Salem.—(1) Part construction of inspection shed with outhouses at Shulagunta.
(2) Part construction of inspection shed with outhouses at Manchi.
(3) Part construction of inspection shed with outhouses at Siddhapuram.
(4) Part construction of subordinates' quarters at Urigam.
(5) Part construction of rest-house with outhouses at Denkanikota.
(6) Extension of final cleaning sandalwood shed at Denkanikota.
(7) Improvement to the Range Officer's quarters at Denkanikota.

South Salem.—(1) Completing the subordinates' quarters at Poosaripatti.
(2) Completing the inspection shed at Kanapadi.
(3) Completing the inspection shed at Malayalapatti.
(4) Flooring the sandalwood godown at Sobanapuram.
(5) Improvement to Vasalur rest-house.
(6) Construction of inspection shed at Malliyakarai.

(c) *Miscellaneous.*

11. The cost of new works and repairs was Rs. 340 and Rs. 822 respectively against Rs. 1,017 and Rs. 804 in the previous year. The most important new works undertaken were—

South Vellore.—(1) Digging a trial pit for a well at Sathampattu on the Javadis.
(2) Construction of a well in the Pakkam rest-house compound.

West Vellore.—(1) Construction of a well in the Tirupattur rest-house compound.

The expenditure on repairs was chiefly on the improvement of the existing sources of water-supply in all divisions.

3. Protection of Forests.

(a) *General protection.*

12. The following statement shows the offences registered during the year :—

	1924-25.	1923-24.	
Injury to forests by fire ..	314	232	Increase.
Unauthorized felling ...	9,531	9,732	Decrease.
,, grazing ...	2 202	2,160	Increase.
Other offences	306	283	
Total ...	12,353	12,407	

The increase under injury to forests by fire was in *North* and *West Vellore*, and *North* and *South Salem*, and was chiefly due in *North Vellore* to the exceptional drought of 1923-24 on account of which forests were exposed to the danger of fire in the early part of 1924-25, to the severe and prolonged dry weather on account of the failure of the north-east monsoon in *North Salem* and to the concession allowed for free cutting of grass in *South Salem*. A quantity of sandalwood (about 192 quarters, valued at Rs. 2,489) stored in Gangadevanahalli Forest depot, *North Salem*, was intentionally burnt in February 1925. Two accused were prosecuted, but were acquitted by the Sub-Magistrate, Hosur, for want of evidence. The decrease under unauthorized felling occurred in *South Vellore* and *East Salem*, and was due to the migration of a large number of people to Ceylon who used to make a living by stealing forest produce. The increase under unauthorized grazing was in *North* and *West Vellore* and *East Salem*, and was due to the enforcement of higher rate of grazing fees after the 1st September in *West Vellore*, and to the vigilant watch kept by the beat subordinates in *North* and *East Salem* and by the panchayatdars under the 'Forset village system' in *East Salem*. The increase under other offences is small.

Cases brought to trial.

Year.	Number.	Convictions.	Acquittals.	Percentage of failure.
1923-24	3,722	2,973	749	20·12
1924-25	4,841	3,783	1,058	21 85

The increase was in *South* and *West Vellore*, *East*, *North* and *South Salem* divisions due to the withdrawal of a large number of cases as the accused absconded.

13. A sum of Rs. 82,490 was collected as compounding fees during the year against Rs. 90,880 in the previous year. The instructions issued in Government Order No. 1990, Revenue, dated 13th June 1910, were generally followed in fixing compounding fees.

Patrol system.

14. The special patrol system was in force in *North Vellore* division only, and the party received rewards to the extent of Rs. 210 during the year. The system was not followed in *South Salem* as in previous years as the grazing areas and manure leaf coupes were handed over to panchayats, and the beat subordinates were held responsible for the protection.

Rewards.

15. A reward of Rs. 40 was disbursed at the close of the year to one Forest Guard, one watcher, one police head constable, and two village munsifs for detecting an important timber theft case in the Kuttiroyan reserve, *North Salem* division, and Rs. 82-8-0 to one Range Officer, one Forest Guard, two S.P.C.A. peons, and three ryots for detecting a valuable sandalwood case in *Central Salem.*

(b) *Protection from fire.*

16. *Protection from fire.*—The total area attempted to be protected from fire during the calendar year 1924 was 3,258 square miles, of which 3,213 square miles were successfully protected at a cost of Rs. 5,959. Form 72 shows the area attempted to be protected, cost of protection and the area actually protected. Appendix A shows the details and the causes of fires.

Special protection.—The area which was under special protection was 1,094 square miles as compared with 1,129 square miles in the previous year. An area of 1,078 square miles was successfully fire-protected during the year against 1,122 square miles in the previous year. The percentage of failure being 1.46 against .62 in the previous year. The increase is small and requires no comment.

General protection.—The area under general protection was 2,064 square miles against 2,153 square miles in the previous year, the percentage of failure being 1.40 against .69 in the previous year. The area burnt was 29 square miles against 15 square miles in the previous year.

Early burning.—This system was not followed as the conditions in this Circle do not appear to require it.

(c) *Protection from cattle.*

17. There was an increase in the number of cattle impounded in *North* and *West Vellore* divisions and a decrease in the remaining divisions. Appendix B shows details. The increase is attributed to the successful detection of cases by the patrol parties in *North Vellore* and the beat subordinates in *West Vellore*. The decrease is attributed to some reserves having been transferred to panchayat and to the vigilant protection by the subordinates.

(d) *Protection against injuries from natural causes.*

18. *Prickly-pear.*—No measures were undertaken to eradicate this pest owing to the prohibitive cost.

Lantana.—A sum of Rs. 52 was spent in clearing lantana over an area of about 4½ acres in the Javalagiri bungalow observation area, and a sum of Rs. 44 for removing and burning *Zizyphus Oenoplea* over an area of 11 acres in the Panai reserve in *North Salem* division. Lantana is prevalent in the Kudimaduvu reserve in the *East Salem* division, and in the Solamathi reserve of Perambalur range and in portions of Musiri-Pachamalais and in the Jambuthu reserve of the Namakkal-Kollimalais, *South Salem* division, but owing to financial stringency, no attempt was made to eradicate it.

Creeper-cutting.—This was done in all sandalwood areas. Creepers were also cut in the coupes to be exploited at the time of standard marking. In Chingleput, *Euphorbea* and other noxious growths were cut by contractors in coupes worked by them.

Loranthus.—The branches of young sandal trees affected with this pest in *South Salem* were lopped off wherever found and the dead and dying trees were also removed.

Spike.—This is dealt with under research and experiment.

Bison.—Bisons continued to do damage to the young sandal growth on the Javadis particularly in special tending areas in *South Vellore*, and the sandal saplings in the Chitlingi and Karungal reserves in the Chitteri range, *East Salem* division. Mr. Chandy shot a bison with 38 inches horns which he met accidentally during his inspection of the Kottapatti extension on 10th December 1924.

Wild animals.—No remarks.

CHAPTER III.—SYLVICULTURE.

SECTION 1.—FORMATION AND REGENERATION OF FORESTS.

(i) *General Progress of areas under regeneration.*

19. There are no areas under any special system for regenerating any particular species in this Circle.

(ii) *Establishment of reproduction of working plans or schemes (with Form 75-A).*

(a) Mainly natural.

20. *Chingleput.*—Coppice reproduction in all the felled coupes is satisfactory. Simple coppice or coppice with standards was adoped according to the species and the nature of growth, and the fuel coupes under closure were fenced with thorns. *North Vellore.*—Natural regeneration under seed-bearers was good in the Ammanur reserved forest and Palar plantations and natural regeneration of sandal is fair in coupe II of Rangampet series. In other places, it was a very poor seed year, especially for the superior species. *Hardwickia binata* which seeded profusely in previous years did not seed at all this year. Reproduction from coppice shoots was normal. *South Vellore.*—The year was generally adverse to natural reproduction on account of prolonged drought. *West Vellore.*—Natural regeneration of sandal was not generally favourable during the year on account of failure of rain. The natural reproduction of teak seedlings on the Yelagiris and particularly in the Kottur specially protected block was very good and that of other species such as *Chloroxylon Swietenia, Albizzia* amara, etc., is good in Bargur and Nandibanda reserves of Krishnagiri range. Regeneration by coppice is fairly good in the felled coupes. Coppice shoots of *Premna tomentosa, Chloroxylon* and *Albizzia amara* are reported to be very vigorous. *East Salem.*—Reproduction of coppice shoots in felled fuel coupes was fairly satisfactory, especially those of *Chloroxylon Swietenia, Albizzia amara* and *Accacia Sundra.* Except in Veppampatti extension reserve, regeneration of sandal was a failure for want of rain. The regeneration of *bamboos* is excellent in places where we had gregarious flowering. *North Salem.*—Natural reproduction of sandal is good in Dharmapuri and Anchetti ranges and that of *Melia indica, Albizzia Lebbek, Hardwickia binata,* and *Terminalia arjuna* is fair in Dharmapuri range. The natural regeneration of *Hardwickia binata* is very good in the reserves adjoining the Cauvery. *Central Salem.*—Natural regeneration of sandal trees in the higher elevations of Shevaroys and Bodamalais was satisfactory. Frenella seedlings in the Sanniyasimalai reserve are growing well as well as root-suckers from the burnt trees of *Accacia decurrens. South Salem.*—Natural regeneration of sandal is promising in the upper slopes of the Kollimalais and in the sandal areas of Perambalur and Thammampatti ranges; also along the streams at the foot of the Pachamalais and on the higher slopes except in badly spiked areas. Regeneration of *Dalbergia latifolia, Pterocarpus, Marsupium, Anogeissus latifolia, Albizzia odoratissima, Albizzia procera, Terminalia Chebula, Terminalia tomentosa,*

Pterospermum rubiginosum, Chloroxylon Swietenia is good. In all the fuel series reproduction by coppice shoots is quite satisfactory and live fences erected by fuel coupe contractors do well. The regeneration by seeds is not promising due to prolonged drought. The regeneration of bamboos is fairly satisfactory.

(b) Mainly artificial.

Hardwickia binata seeds dibbled in the felled coupes of Odugathur range of *North Vellore*, Pongamia glabra seedlings in Kannamadai reserve in *South Vellore*, cuttings of *Jatropha Curcas* in the Denkanikota rest-house compound and the Javalagiri bungalow observation area as well as the sowings of this species in *North Salem*, tamarind and sandal seeds in Shevaroys North range were successful. In other places, prolonged drought made matters difficult. The North Salem District Forest Officer states that *Jatropha Curcas* should form a useful host for sandal in the dry weather as it does not shed its leaves.

(c) Afforestation.

None during the year under report.

(iii) *Plantations and other forms of regenerations not under working plans or schemes (with Form 75-B).*

21. *North Vellore.*—In the Pichanur tope, there has been very good regeneration of Red Sanders and *Pterocarpus Marsupium*. Ditch and mound sowings was done in plot II of Ambur plantation with *Hardwickia binata, Dalbergia latifolia*, Red Sanders and teak. The result is fairly satisfactory. Sandal seeds were dibbled in small plots all over the division according to Mr. Wood's suggestion, but except in Ambur, Pichanur and Naikaneri, the operations have not been a decided success. *South Vellore—The Amerdi plantation.*—A brief history of this plantation was given in last year's administration report. The total area under plantation remained the same. The work carried out during the year was the replacing of casualties in some of the compartments with Red Sanders, Sissoo, and *Melia dubia* seedlings raised in a nursery in the plantation. In spite of the plantings having been carried out in ideal weather, practically all the seedlings died in the subsequent drought. The planting was done by the subordinates assisted by a few coolies at a cost of Rs. 71. *Muttakadu experimental plantation.*—A brief description of this experimental plantation was given in the last year's report. The work during the year consisted of ploughing up a blank plot of about one acre and sowing it intensively with 6 lb. of *Hardwickia binata* seed and dibbling in pits in other plots 16 lb. of *Pterocarpus Marsupium* seeds to replace casualties. These sowings were unsuccessful on account of the adverse season. The old plants in the several plots of the

experimental area were weeded during the year. The cost incurred on the plantation during the year was about Rs. 10. The survival of the old plantings as compared with those of the previous year is shown in the following statement :—

Species.	Sowing at the end of June 1924.	Sowing at the end of March 1925.
Pterocarpus Marsupium	253	236
Gmelina arborea	218	172
Albizzia Lebbek	21	29
Acacia ferruginea	230	187
Hardwickia binata	923	926

Central Salem—Kurumbapatti plantation.—No work was done except sowing seeds. *Sanniyasimalai plantation.*—Pit sowing of *Acacia decurrens* was done in the area where the fire did havoc in the previous year with a view to form a fire-break. They came up very well to start with, but during the hot months most of them died.

(iv) *Tending.*

22. General tending was carried out in all sandalwood coupes except in Denkanikota sandal felling series where the staff was fully occupied in extracting spiked sandal trees; climbers and creepers were cut and sandal trees freed from overheaded shade. In *South Vellore*, new special tending areas were selected and fenced in all the coupes in which dead and dying trees had been extracted in the previous year. The fences of all the old special tending area were repaired and strengthened during the year. Further opening out of cover was carried out in the two acre experimental plot in the special tending area in coupe II of the Veerappanur sandal series referred to in the last year's report. The results are being watched. In *South Salem*, the scheme for special tending sanctioned for the whole of Pachamalais and Kollimalais with effect from 1924-25 was not taken up owing to the attenuated budget.

(v) *General.*

23. The drought reported last year continued, and the subsoil level of water in many places is reported to be lower than it has been in living memory. Under these conditions, it is not surprising that failure has to be reported. Still, it is most important that experiments on a small scale in artificial reproduction should be continued to add to our knowledge on the subject, and the small amounts spent should not be regarded as money wasted.

SECTION 2.—TENDING OF THE GROWING STOCK.

24. Though provision has been made for the improvement selection fellings of timber in *West Vellore*, the coupes could not be worked during the year owing to the late receipt of sanction

of the new working plan. In *East Salem*, in coupe V of Kudimaduvu, 42 trees were felled and 18 trees were girdled, and in coupe VI, 54 trees were marked for felling solely to facilitate the growth of superior species, but the operation was dropped as ordered in Chief Conservator's No. 608, Routine, dated 1st December 1924. In *North Vellore*, the coupes in the Palar riverside plantation were felled under the system of improvemnt fellings by which all dead, dying and malformed trees were removed.

CHAPTER IV.—EXPLOITATION.

(*a*) System of Management.

25. The total area under working plan during the year was 2,259 square miles and the various sylvicultural systems in force are detailed below :—

	Area in square miles.	Percentage to the total area under working plan.
Method of clear fellings by compartments	...	...
Uniform method	...	...
Group method	...	...
Selection method	172	7·61
Simple coppice	609	26·95
Coppice with standards ...	56	2·48
Method of improvement fellings ...	543	24·05
Unworked or other fellings ..	879	38·91
Total area under working plans ...	2,259	100·00

(*b*) Exploitation by Departmental Agency.

26. The chief item of departmental extraction was sandalwood. A quantity of 272½ tons was sold at Tiruppattur against 259 tons in the previous year and 160 tons at Vellore against 49 tons in the previous year. The average rate realized was Rs. 1,250 per ton at Tiruppattur and Rs. 1,171 at Vellore against Rs. 1,057 and Rs. 1,082 respectively in the previous year. The quantity sold was considerably larger than the average of past years and this is due to the extraction of a greater quantity of spiked sandalwood trees in *North* and *South Salem* divisions, to the large quantity of sandalwood extracted from Ponakad areas, and to the purchase of sandalwood trees from patta lands in *Central Salem*.

Timber.—Four hundered and thirty-seven cubic feet of *Terminalia Arjuna* timber was felled in Karuthamalai and Thellai reserves in *North Vellore* division to test the market. As there was no local demand for it owing to superstition, the timber was brought to Vellore and sold. Two hundred and seventy cubic feet of timber was extracted in *North Salem* as an experimental measure

for sale to the public and other departments. Small quantities of timber were extracted from other districts for building purposes.

Fuel.—Thirty tons of fuel was extracted in *North Salem* for sale to the pilgrims who attended the Adi festival at Hoganakal and 240 cubic feet by the students of the Vernacular Training School for the manufacture of charcoal. About 16 cart-loads or 220 cubic feet of Frenella wood in *Central Salem* division which found no sale last year was sold to the public by issue of permits departmentally. In other districts, a small collection was made from clearing lines. This was partly used for burning bricks required for departmental buildings and partly sold.

Bamboos.—Seven thousand seven hundred bamboos were cut for free grant under Chief Conservator's sanction in *South Salem.* A small quantity was also extracted in this and other districts for departmental use.

Minor forest produce.—Two hundred and eighty-seven quarters of Divi Divi pods in *North Vellore*, about 60 quarters of Nux-vomica in *South Vellore*, and about 897 measures of Nux-vomica in *South Salem* were collected departmentally as the bids at the public auction for the produce were unsatisfactory.

(*c*) Exploitation by purchasers.

27. Except in the cases referred to in the above paragraph, fuel and bamboos were as usual extracted by contractors who purchased coupes standing. The collection of minor forest produce was also leased out to contractors.

The total outturn from all classes of forests by all agencies is compared with similar details last year in the following statement:—

Year.	Timber in thousands of cubic feet.	Fuel in thousands of cubic feet.	Bamboos.	Gross value of minor forest produce including grass and grazing.
			Rs.	Rs.
1923-24	929	1,519	1,13,500	3,96,019
1924-25	590	2,015	82,222	3,72,357

Timber is a fluctuating item.

Fuel.—The increase was chiefly in *East, Central* and *South Salem*, and due to handing over a portion of Class II reserves to panchayat management for fuel working in *Salem*; to better sales in *Central Salem*, and to more correct figures obtained from fuel coupe contractors in *South Salem.*

Bamboos.—The fall is in all divisions and is due to the flowering of bamboos in *North Vellore* and *East Salem*, to the collection of three kists during 1924-25 the third year of the 3 years' lease as

against four kists in the previous year in *South Vellore*, to want of keen competition in *West Vellore*, *North Salem*, and *Central Salem*. to the collection of the first kist for 1925-26 lease in April 1925 instead of in March itself as in the previous year in *West Vellore*, and to the sale amount of 3 years' lease having been brought to the last year's return in *South Salem*.

Grazing.—The decrease is in almost all districts and is due mainly to the failure of the monsoon and to consequent scarcity of water and fodder and the mortality of cattle. It is also due to the restriction of grazing possibility by the formation of panchayats.

Minor forest produce.—The decrease is in almost all districts and due to the failure of the monsoon, and dullness of markets.

In *North Vellore*, 574,344 lb. of hay was removed by the Military Grass Farm department and its royalty Rs. 512-12-7 at Rs. 2 per ton adjusted during the year.

In *South Vellore*, out of seven coupes leased out to co-operative societies in Tiruvannamalai range, only three were worked during the year, the reason being that fuel coupe contractors were supplying fuel to Tiruvannamalai town from the disforested areas of Chengam range at cheaper rates. In Chengam range, 18 fuel coupes were worked by panchayats under the 'Forest village system'. This is the first year that the system of working small coupes in panchayat blocks has been tried. A satisfactory start has been made and it is hoped that coupes in other blocks will be taken up by panchayatdars next year. Seven fuel coupes in Tiruvannamalai range were leased out to co-operative societies and one coupe in Polur range to a co-operative wood-cutters' society during the year at the average rate obtained in previous years, in accordance with the policy laid down in paragraph 6 of G.O. No. 1478, Development, dated 4th November 1922.

Grazing.—Of the total area of reserved forests and reserved lands, 90.87 per cent was opend to grazing against 94.94 per cent in the previous year. The incidence of grazing in the several districts of the circle is given below :—

Divisions.	Acres.	Cow units.	Number of acres per cow unit.
Chingleput	93,440	8,988	10·39
North Vellore	250,880	48,726	5·15
South Vellore	291,200	73,189	3·97
West Vellore	238,720	55,758	4·28
East Salem	313,600	65,370	4·95
North Salem	308 480	47,102	6 55
Central Salem	247,680	55,622	4·46
South Salem	231,040	52,785	4·38
Total ..	1,975,040	407,440	4·85

There is a great decrease in the number of cattle grazed during the year as compared with the previous year. The explanation given above for the decrease in grazing revenue holds good here also.

(*d*) EXPLOITATION BY RIGHT AND PRIVILEGE-HOLDERS.

28. The rights granted to the villagers at settlement in V. Kanapadi and Palamalai Extension reserved forests and in Gundur, Ariyur Shola reserved forests in *South Salem* were not enjoyed as the patta-owners at the time of settlement were not traceable, many having emigrated to Ceylon. Another reason was that the villagers did not dispose of their goats. In *North Vellore*, 23,055 lb. of hay valued at Rs. 20 was supplied to the Military department without any royalty being recovered. The Malayalees of Thellai Arasampet and part of Athiyur reserved forests had the usual grazing concession of 3 annas per cow unit in return for the protection of forests. In *South Vellore*, as in the previous year, the system of free grazing of cattle of the Malayalees on the Javadis on a deposit of 3 annas and the distribution of rewards to hill tribes for the successful protection of reserves from fires continued to work satisfactorily during the year. In some instances, however, the privilege of carrying knives into the reserves to cut creepers infesting sandal trees was abused by certain Malayalees who hacked bamboos instead to feed their cattle on the leaves. The system of grazing either free or on payment of half or one-fourth of the grazing fees under the 'Forest village system' in force in Tiruvannamalai and Gingee ranges and Alliala-mangalam reserved forest of Polur range, in return for effective protection of the block entrusted to each village, has worked satisfactorily. In *West Vellore*, the Malayalees on the Javadis and villages adjoining the reserves in the plains were paid rewards for successful protection of reserves from fire. In *East Salem*, the grazing of cattle of Malayalees on the Chitteris and Periyakal-royans on a deposit of 3 annas per cow and the distribution of rewards to hill tribes for the successful protection of reserves continued to work satisfactorily. In *Central Salem*, free grazing was allowed in Sanniyasimalai reserved forest for 150 cattle to protect the area from fire.

(*e*) EXPLOITATION BY FREE GRANTEES.

29. The quantity and value of produce removed under the head are given below. The free grants were made chiefly from unreserves, and in a few cases from reserves for rebuilding houses destroyed by fire or floods. The usual grant of 10 tons of firewood for Masimakam and Kanthri festivals were made from the Pichavaram reserve in *East Salem* division. In *Chingleput*, there was

one case of free grant from Guindy Park reserve to the villagers of Velacheri to rebuild their houses burnt by fire. It was given with the permission of His Excellency the Governor and was appreciated by the grantees at a public meeting.

—	Timber in thousands of cubic feet.	Value.	Fuel.		Bamboo value.	Grazing.	Other minor forest produce.	Total.
			In thousands of cubic feet.	Value.				
		Rs.		Rs.	Rs.	Rs.	Rs.	Rs.
Right-holders ..	..	..	..	..	..	20	..	20
Free grantees ..	79	10,285	..	40	341	12	226	10,904
Total ..	79	10,285	..	40	341	32	226	10,924

CHAPTER V.—FINANCIAL RESULTS.

30. The follolwing statement shows the financial position of the year under report compared with that of the previous year and the average of the preceding quinquennium :—

—	1924-25.	1923-24.	Average of the preceding quinquennium.
	Rs.	Rs.	Rs.
Revenue	* 13,09,772	12,27,828	12,32,411
Refunds	18,903	18,290	20,748
Net ..	12,90,869	12,09,538	12,11,663
Expenditure.			
B. Conservancy and Works	1,31,251	1,40,775	2,01,793
C. Establishment	5,03,376	5,19,639	4,72,132
Total expenditure ..	6,34,627	6,60,414	6,73,925
Surplus ..	6,56,242	5,49,124	5,37,738

* Excludes Rs. 6,640 relating to other Circles as explained at the foot-note of Form No. 80

The increase under revenue was mainly under I (*d*) and was due to the increased supply of sandalwood to the Tirupattur and Vellore sale depots from *North* and *South Salem* divisions owing to the extraction of spiked sandal trees, to the larger quantity of sandalwood extracted in the *South* and *West Vellore* and *Central Salem divisions*, and to better prices realized during the year.

There was decrease of expenditure by Rs. 9,524 under 'B. Conservancy and Works,' and by Rs. 16,263 under 'C. Establishment,' as compared with that of last year. The various contributions to the gross receipt of Rs. 13,09,772 are detailed below :—

	Per cent.	
Major produce	55 93	(This includes 41·97 per cent from sandalwood.)
Grazing	17·23	
Bamboos	6 83	
Minor forest produce ...	11 80	
Miscellaneous items ...	8·21	
Total ...	100·00	

Under 'B Conservancy and Works'—

Per cent.

58 90 was spent on exploitation.
38·67 was spent on upkeep and improvement of forests, and
2·43 was spent on miscellaneous items.

Total. 100·00

31. The important variations are explained below :—

RECEIPTS.

(i) *By Departmental Agency.*

Sandalwood.—Plus Rs. 1,90,892. The reason for the increase is the same as explained above.

Variations under other heads are small and call for no remark.

(ii) *By Purchasers.*

	RS.	
Timber ...	—8,532	The variations have been explained in Chapter IV.
Bamboos ...	—19,764	
Grazing ...	—20,658	
Minor forest produce.	—32,874	
Fuel ...	+ 6,966	(Compared with the figures of IV Circle alone) due to the reason given in Chapter IV ; and — Rs. 2,604 (compared with the figures of IV Circle including Chingleput and North Vellore due to non-sale of fuel coupes by the formation of panchayats and to the realization of less revenue from unreserved lands in the Chingleput district, and to the price of fuel having gone down on account of drought in North Vellore.

	RS.	
Miscellaneous V (*a*)	—99,698	Due to the change of head of service for compounding fees from V (*a*) to V (*b*)

EXPENDITURE.

'*B. Conservancy and Works*' and '52-*A. Forest Capital Outlay*'.

The important variations are explained below :—

	RS.	
I (*d*)	+3,965	Due to corresponding increase of revenue under this head.
II	—3,651	Due to the reduction of watchers, to issue of permits by the subordinates, and to the savings effected under commission to Permit Issuing Officers on account of Class II panchayat system in certain districts.
VII	—5,494	Due chiefly to postponement of the construction of subordinates' quarters at Sathiavedu in Chingleput district.
VIII	—4,957	Due to restricted expenditure under tending, sowing and planting operations and other works.

C. *Establishments.*

	RS.	
C I to III ...	... 19,016	Due to the transfer of Imperial officers from this Circle, to less payment of leave salary during the year than in the previous year, and to the salary paid to the actual establishment employed during the year.
C IV ..	— 2,694	Due to the strict observance of Travelling Allowance Rules and to non-payment of fixed travelling Allowance to some Foresters who were considered ineligible under the rules.
C V ...	- 2,979	Due to the restricted expenditure during the year and to the adjustment of cost of maps supplied by the Map Officer, Dehra Dun, in 1923–24, in the Direction Office and to not incurring similar expenditure during the year.

CHAPTER VI.—RESEARCH AND EXPERIMENT.

32. Spike continues to devastate the sandal forests of *North Salem* and *South Salem*. In the latter division, a larger number of trees had to be destroyed this year than the total number extracted in the previous three years; yet in all the areas from which trees have been removed new attacks are seen. One doubtful case of spike reported from Pudupatti reserve in *Central Salem*, was verified at Dehra Dun, but no new cases seem to have occurred in the locality. There was also a recrudescence of spike at Nellivasal in *West Vellore;* twenty suspected trees were extracted and specimen leaves of trees Nos. 1, 7 and 8 were sent to Dehra Dun, and the Forest Botanist declared them as spiked.

It would certainly be an economy to appoint an expert to track down this disease.

Observations were continued in *North Salem*. Apparently spike kills sandal trees within two years of the time of infection. The main experiments in connection with sandal with special reference to spike were to determine—

(1) whether sandal is self-fertilized;
(2) whether plants grown from seeds from sandal trees in spiked areas are immune from the disease, also whether seeds from spiked trees will produce healthy plants;
(3) what insects feed on sandal leaves and visit the flowers;
(4) whether sandal can be infected by gratifying with spiked Zizyphus Oenoplia and *vice versa;*
(5) how long sandal seed remains fertile;
(6) which is the best time of year to sow sandal and what is the best way of treating seeds to prevent insect attack;
(7) whether spike can be arrested by pruning spiked branches, treating with chemicals, and coppicing;
(8) whether root-suckers from infected trees become infected;
(9) whether infection takes place by contact with spiked leaves or wood.

It is not possible yet to make any definite conclusions, but there seems to be justification for supposing that infection takes place above ground, and it has been suggested that a likely cause of infection is the pollen from the flowers of diseased plants. Experiments to test this hypothesis thoroughly are being made.

The District Forest Officer, *North Salem* (Mr. Hart) asserts that lantana is not always the pest it is made out to be, for under its shade is generally found promising sandal regeneration which has the power of pushing its way through and above the lantana.

Among other experiments in *North Salem* may be mentioned clearing and burning strips in semi-evergreen forest in Gulhatti reserve containing mainly Memecylon edule, and introducing more valuable species such as teak, sandal, rosewood, *Melia dubia*, and *Albizzia odoratissima*. The same was done in deciduous forest in Aiyur and Nyamasandiram agraharam reserve. This method of regeneration has much to commend it, being safer than clear felling and planting, and also being easier to work and to check than improvement fellings, or coppice with standards.

In *South Vellore* experiments on the growth of *Dendrocalamus strictus* were continued, the object being to ascertain—

(1) the best rotation,
(2) the best method of felling, and
(3) the life of individual culms.

As these experiments are to be continued for a further period of three years, thinnings were carried out and observations noted during the year, and the results were tabulated and sent to the Sylviculturist, Dehra Dun.

CHAPTER VII.—ADMINISTRATION.

33. At the close of the year, the headquarters of *North Salem* was transferred to Mattigiri in G.O. Mis. No. 130, Development, dated 26th January 1925. *North Vellore* division, revised to include part of *Chingleput*, was added to this circle and at the same time the *Chingleput* division was abolished.

Mr. H. A. Latham was in charge of the Circle up to 24th November 1924 and Mr. T. Clear for the rest of the period.

34. *Tours.*—All the District Forest Officers except *South Vellore*, *East Salem*, and *Central Salem*, spent the prescribed number of days in camp. The short touring by the three District Forest Officers is due to changes in the personnel of District Forest Officers.

35. *Inspection—By the Conservator—Office.*—All the District Forest offices were inspected.

Forests.—Certain forests of *South Vellore*, *South Salem*, and *North Salem*, were inspected by Mr. Latham.

By the District Forest Officers.—All the Range offices were inspected.

Sandalwood depot.—The sandalwood depots, Vellore and Tiruppattur were inspected by the District Forest Officers, *South Vellore* and *West Vellore*, respectively.

36. *List of offices audited—Local Fund Inspector of accounts.*—All the District Forest offices were audited and the result was generally satisfactory.

37. *Vernacular Training School.*—The session for 1925 was held in *North Salem* division from 2nd February 1925 with 29 students on the roll. One was removed for absence without leave. During the 1924 session, 16 out of 28 students got first-class certificates.

38. *Health of establishment, including an account of the measures to improve sanitation and casualties.*—The health of establishment was not very satisfactory. Malaria continues to attack subordinates working in the Javadis, Chitteris, Kollimalais and Pachamalais. Measures to improve sanitation were taken in *South Vellore* where quinine and mosquito-nets were supplied and good drinking water provided. The improvement in the health of the staff seems to be worth the trouble taken.

Casualties.—Three Foresters, 3 Forest Guards, and 1 watcher, died of malaria, 2 Forest Guards died of cholera, and one head clerk died of plague.

CHAPTER VIII.—GENERAL.

1. Formation of and Management by Panchayats (to include Forest Village System).

(*a*) *Formation and Management of Panchayats.*

39. *Formation.*—Panchayats for Class V forests remained under the control of the Forest Panchayat Officer.

Forest village system.—Panchayats for Class II forests have been introduced in *South Vellore*, *West Vellore*, *East Salem* and *South Salem*. The results of working are reported below. As was the case last year, the best results were obtained in *South Vellore* for which the District Forest Officer, Mr. Gaudoin, deserves credit.

South Vellore—Working of the system.—In the Tiruvannamalai and Gingee ranges, the system continued to work very satisfactorily. The panchayatdars and forest villagers co-operated with the department and helped in the protection of their blocks. There were no instances of disagreement between panchayatdars and the Forest subordinates. As usual panchayatdars were re-elected for the year at general meetings. In the case of 18 blocks in Tiruvannamalai, with the Chief Conservator's sanction, the period of agreements was extended to three years at the request of the panchayats. A feature of the elections this year was that a certain number of Adi-Dravidas were elected to work on some of the panchayats.

During the year certain blocks in the Tiruvannamalai and Gingee ranges were re-constituted, in some cases by combining 2

or more blocks to make the panchayats solvent and enable them to employ watchers, and in others by re-arranging the boundaries to meet the requirements of the forest villages.

During the year, the Chief Conservator sanctioned the adoption of the system for the Allialamangalam reserve in the Polur range; with a few modifications, in respect of refunds and concessions, the conditions of working are the same as in Tiruvannamalai and Gingee. The system was introduced in this reserve in September 1924 and promises to be successful.

Concessions.—Women and children were allowed to remove dead fuel as a concession in most of the blocks in the Tiruvannamalai and Gingee ranges. No instances of abuse were brought to notice. This concession has not been sanctioned for the Allialamangalam reserve.

The removal of shrubs and non-woody species for green manure was allowed as a concession in a few blocks in the Tiruvannamalai range, and in practically all the blocks in the Gingee range. The system was also introduced later into Allialamangalam. No instances of abuse were brought to notice. There has, however, been a general complaint that the rate of Rs. 2 per cart-load is high.

The free removal of thatch grass was allowed to forest villages in most of the blocks in all the reserves.

Permission was granted during the year to the Thanipadi and Reddipalayam forest villagers to pen their cattle for three months in the hot season on the banks of the Ponniar river, in the Ponniar reserve, to facilitate the watering of their cattle.

Fuel coupes.—During the year, 4 coupes in Allialamangalam, 3 in Tiruvannamalai and 18 in Gingee were marked out in the various forest village blocks and sold to the respective panchayats. The working on the whole was very satisfactory. The advantage of selling small fuel coupes in forest village blocks is that each coupe serves as a local fuel supply to villagers and to some extent obviates thefts of fuel and small agricultural timber from the reserves.

Sowings.—Celebration of 'Arbor' day by the panchayats was continued during the year in some of the Forest village blocks. One panchayat in Allialamangalam reserve carried out sowings of *Leucaena glauca* seed in blank areas of its block.

Darbar day.—The sixth annual Darbars at Tiruvannamalai and Thanipadi for the Tiruvannamalai panchayats and the second Darbar for the Gingee panchayats at Shanikolam and Turinjikadu were held during the year. All the Darbars were well attended by the public. The District Forest Officer presided at all the Darbars and as usual distributed the grazing refunds.

West Vellore.—The system of managing Class II reserves under the control of the Forest department was first started in this division during the year under report in respect of Mudanai and Paramanandal reserved forests of Chengam range and Bargur and Kottur reserves of Krishnagiri range. In spite of much persuasion, the villagers around the former two reserved forests could not be brought round to form a panchayat and the proposals had therefore to be dropped. The Chief Conservator in his Proceedings No. 562, Routine, dated 11th November 1924, has sanctioned the formation of Class II panchayats in respect of the latter two reserved forests and they have been since actually handed over to the panchayat management.

East Salem.—The system of managing Class II reserves under the control of the Forest department was adopted in the whole of Kallakurichi range, except in the Mangrove reserves of Pichavaram and its extension. Altogether 38 panchayats have been formed for that range. The scheme was approved by the Chief Conservator in his Mis. No. 139, dated 23rd April 1924. According to this scheme the panchayatdars are permitted to issue permits for grazing and removal of manure leaves. They are also permitted to work a fuel coupe for fuel and small timber. The grazing possibility is fixed at 3 acres per cow unit excluding the area unfit for grazing and the area of the coupes felled during the past six years. The manure leaf and fuel coupes are worked on a 3-year and a 40-year rotation respectively. Ten reserves of the Harur range were also given to panchayat management for grazing alone. Two panchayats were formed for the management of the Mannur reserve of the Atur range for grazing and removal of manure leaves and fuel on the same lines as the Kallakurichi panchayats. The panchayatdars are paid a commission of $6\frac{1}{4}$ per cent for writing out permits for grazing. They are given a refund up to 25 per cent of the amount collected by the issue of grazing and manure-leaf permits if the protection of the reserve is satisfactory. This is the first year of working and the result so far has been satisfactory.

South Salem.—Eleven panchayats were formed during the year in Vaiyampatti range to manage grazing only in all reserves of the range with a rebate of 25 per cent *plus* commission on the value of permits sold. In Musiri range, one panchayat was formed to manage fuel, grazing and manure leaves, and 4 panchayats to manage manure leaves only. There were 6 panchayats for grazing and manure leaves in Perambalur range, of which 3 undertook also to work fuel coupes. The fuel coupes were not managed well. In one case, removal of manure leaf was effected in carts drawn by two pairs of bulls, on permits issued for single cartloads, from which it may be inferred that the concession was

appreciated. In Namakkal range, five panchayats were formed to manage grazing and manure leaves; three fuel coupes were handed over to panchayat, but were not worked and were not paid for. In one case the President misappropriated the money collections and the panchayat had to be dissolved immediately. In Thammampatti range the village panchayat of Gangavalli Class I forest was reconstituted with fresh members, undesirable members of last year being removed. A sum of Rs. 54 was disbursed as reward against Rs. 134 in the last year. On the whole, the system did not work well in this division, but improvement is hoped for when the benefits of it are realized.

2. Measures for improving Local Supplies and Facilities for obtaining Forest Produce including Water-supply, Fuel, Manure leaves, etc.

(a) *Improvement of water-supply in State Forests.*

(i) Boring operations.

Nil.

(ii) Improvement of water-supply in grazing grounds.

40. In *South Vellore*, five tanks were repaired, for four of which the panchayatdars contributed half the cost. One step well was repaired for Rs. 250, the entire cost being met by one individual. One well in *West Vellore* division was repaired for Rs. 32, and eight tanks in *North Vellore* for Rs. 305. Four wells and one tank were repaired in *East Salem* at a cost of Rs. 184. Besides this, the ryots have themselves removed silt in certain tanks at their own cost. One well was repaired in *Central Salem* at a cost of Rs. 96. One pond in Chingleput was repaired for Rs. 156.

(b) *The supply of Forest Produce to meet the wants of the People.*

41. This was attended to generally by coupe contractors and panchayatdars. Co-operative societies in Tiruvannamalai range, *South Vellore* division, continued to work coupes satisfactorily.

(c) *Supply of manure leaves.*

42. Manure leaves were distributed through panchayats in the districts where they have been formed. The question of leaf manure has been re-opened in Chief Conservator's Proceedings Ref. No. 2934/25-1, dated 8th June 1925, G.O. Press No. 652, Development, dated 2nd May 1925.

3. Timber and Sandalwood Transit Rules.

43. There are no timber transit rules in this Circle.

Sandalwood Transit Rules.—Proposals for the revision of rules in *Chittoor* and *North Arcot* are awaiting sanction of Government. Revised rules for the *Salem* and *Trichinopoly* districts are under consideration.

4. Jungle Tribes.

44. The Malayali hill village system is in force in Thellai reserved forest of *North Vellore* division, the Javadis of *South* and *West Vellore* divisions, and the Chitteris and Kalroyans of *East Salem* division. The system has worked satisfactorily. In the Tiruppattur-Javadis, however, eleven villages are still unwilling to join. The Co-opertaive stores opened for the benefit of the Malayalis at Komattiyeri was wound up during the year. Steps are being taken to form a new one. The Malayali schools at Komattiyeri and Veerappanur are reported to be working satisfactorily. A thatched school-house with mud walls was constructed under the supervision of the Forest department during the year at Peria Ettipet, a hill village near Thongamalai; for the benefit of the children of the neighbouring villages. The funds were supplied by the *Vellore* Taluk Board which will run the school with the usual help rendered to the hill schools by the Forest department.

5. Mining and Quarrying.

45. *Mining.*—The prospecting licence to Mr. E. K. Dickens for working Emery in Sanniyasimalai in *Central Salem* division was renewed from 1st December 1924 by the Collector.

Quarrying.—The quarries in the Tambaram reserved forest with old *Chingleput* division are being worked by stone masons and those in the reserves of *North Vellore* division are being leased to contractors. Local Fund contractors are allowed free removal of road metal from reserved forests adjoining roads in this district.

6. Civil Suits.

46. The second appeal regarding the ownership of Arana and Thirthagiri blocks, *East Salem* division, referred to in the last report to be pending with the High Court is reported to have been disposed of in favour of the department, but no official communication is reported to have been received about it. In *North Salem*, the coupe contractor whose suit was dismissed is reported to have preferred an appeal to the District Court, *Salem*.

7. CONTROL OF UNRESERVED LANDS BY THE FOREST DEPARTMENT.

47. The land revenue administration of the Javadi Hill villages of Tiruppattur taluk, *North Arcot* district, continued to be under the District Forest Officer, *West Vellore*. This system has been ordered to be continued for another year in G.O. Memo. No. 206-I/25-3, Development, dated 30th June 1925. As the new set of accounts prescribed in G.O. Mis. No. 761, Revenue, dated 20th May 1924, were adopted during the year and as some practical difficulties were felt, certain modifications were sanctioned by the Board in its Mis. No. 2438, dated 14th October 1924. The unreserves of the Pachamalais and Kollimalais in *South Salem* division continued to remain under the partial control of the Forest department in the matter of protecting and extracting timber and sandalwood and sale of minor forest produce.

T. CLEAR,
Acting Conservator of Forests,
Fourth Circle.

SALEM,
14*th August* 1925.

ANNUAL ADMINISTRATION REPORT OF THE FOREST DEPARTMENT

FOR THE

YEAR ENDING 31ST MARCH 1925

FIFTH CIRCLE

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

ALTERATION IN AREA.

Reserved forests—Tinnevelly.—Vaipar and Virusampatti reserves were disafforested as also a portion of the Kudiramoliteri reserve. The total area at the end of the year was 3,243 square miles against 3,251 of the previous year.

2. *Reserved lands.*—Sixteen acres were transferred to reserve forest.

FOREST SETTLEMENT.

3. The settlement of two blocks of .356 square mile in *Madura*, referred to in last year's report, as pending, was completed but the notification under section 16 in respect of one block with an extent of .343 square mile was not sent up until after the close of the year.

DEMARCATION.

4. Thirteen miles in *Kollegal* and 15 in *Madura* were permanently demarcated for the first time at a cost of Rs. 454 and Rs. 863 respectively. Rupees 100 was spent in preparing slabs for demarcating an enclosure in *North Coimbatore*. In *South Coimbatore* reserve boundaries were cleared and estates on the Anamalais were surveyed and demarcated at a cost of Rs. 188. 2,137 miles were kept clear by subordinates free of cost.

FOREST SURVEYS.

5. (a) *By the Survey of India Party.*—None undertaken.

6. (b) The survey of coupes, regeneration areas, roads, etc., was done as usual by the subordinates.

7. Reference maps were maintained in all districts and posted to end of 31st March 1925.

CHAPTER II.—MANAGEMENT OF FORESTS.

1. Regulation of Management.

Preparation and control of regular working plans.

(a) Preparation.

8. No new working plans were sanctioned but in respect of a fuel felling series included in the *Madura* fuel working plan, re-arrangement in the order of working was approved by the Chief Conservator.

A temporary scheme for the extraction of dead and dying trees, chiefly teak from the Talakerai forests in *North Coimbatore*, and the addition of 4 new fuel felling series to the revised working plan of *Tinnevelly* received the approval of the Conservator.

(b) Control.

9. The provisions of working plans and schemes were generally adhere to; but for want of demand 3 fuel coupes in *North Coimbatore*, 3 fuel and 2 bamboo coupes in *South Coimbatore* and 1 fuel coupe in *Tinnevelly* remained unsold. For the same reason an extent of 10.09 square miles included in temporary schemes sanctioned for *North Coimbatore* for the supply of agricultural implements to hill villages had to be abandoned.

Working in one sandal coupe in *Kollegal* had to be stopped to avoid complication in enquiry into a case of theft of sandalwood now before the Sessions for trial.

Communications and Buildings.

(a) *Roads and Bridges.*

10. The expenditure on new works and that on repairs was Rs. 5,098 and Rs. 35,525 respectively. The amount spent on the former represents the construction of 29 miles of bridle paths in the evergreen forests of *Tinnevelly* the alignment of a trace for 3 miles in *Kollegal* and the construction of a road in *Tinnevelly* for 7 furlongs to tap a fuel working circle. Rupees 299 was spent in *Tinnevelly* for the acquisition of 4.53 acres of land for constructing a road, Rs. 263 in *Madura* for the completion of a culvert commenced last year, and Rs. 69 in *South Coimbatore* for the construction of a suspension bridge.

11. The existing roads were in most cases kept in repair. In *Madura* district Rs. 5,878 was contributed by the District Board for repairs to roads and this sum was credited to 'V (b) Revenue'. The construction of the new Mount Stuart Ghat road entrusted to the Forest Engineer was completed and opened to traffic in November 1924. This has reduced the cost of carting timber from Topslip.

12. The bullock tramway continued to work and the quantity of timber trammed to Topslip during the year was 123,443 c.ft. or 20,160 ton miles against 112,174 c.ft. or 24,482 ton miles in the previous year. The average lead was 5.22 miles as against 7 the previous year. The cost of feed and keep of tramming cattle rose from Rs. 18,844 to 20,938 due to the adoption of revised rate of rations prescribed by the Inspector of Livestock.

(b) *Buildings.*

13. The expenditure on new works amounted to Rs. 12,229 and the works executed were—

Tinnevelly.—Completion of a rest-house at Kannikatti, an inspection shed at Kandavarai. Construction of an inspection shed at Kuttalam Kalaruvi, subordinates' lines at Kodamadi, inspection shed with outhouse at Kodamadi, cooly shed at Kuttalam Kalaruvi (part) and Ranger's quarters and Range office at Ambasamudram.

Madura.—Improvements to the Range Officer's quarters at Periakulam and to the Park Lodge at Kodaikanal.

South Coimbatore.—Construction of Instructors' sheds at Topslip for the Madras Forest College and 3 inspection sheds at Konapallam.

(c) *Miscellaneous.*

14. Rupees 695 was spent on the completion of 2 wells in *Madura* and one at Pollachi depot in *South Coimbatore* for the use of the subordinates. The water-supply scheme to Topslip, the proposed headquarters of the Tunacadavu range, is still under investigation.

15. *Telephone.*—The Engineering branch of the Telegraph department was engaged in completely overhauling the telephone line betwen Anamalai and Anaipidi. Effect was not given to the proposal to extend the line from Anamalai to Pollachi. The Chief Forest Engineer has after the close of the year submitted a scheme for taking over the whole line under his control and extending it to Pollachi.

Protection of Forests.

(a) *General protection.*

16. The total number of forest offences reported during the year under review is compared below with that of the previous year :—

Cases	Fire		Felling.		Grazing.		Other offences.		Total.	
	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.
A. Taken into Court ..	1	1	1,363	1,301	327	314	43	46	1,734	1,662
B. Compounded ..	5	..	2,217	2,206	506	630	125	131	2,853	2,967
C. Undetected	316	235	51	34	9	32	..	3	376	304
Total ..	322	236	3,631	3,541	842	976	168	180	4,963	4,933

The difference is small.

17. *Cases old and new dealt with during the year.*—The total number of cases taken into court, including the old ones, was 2,884, of which 1,666 ended in conviction and 546 in acquital, leaving 672 cases pending with Magistrates. The punishments inflicted by Magistrates were on the whole adequate. Rupees 35,855 was realized as compounding fees against Rs. 33,865 in the previous year. The increase was chiefly in *Kollegal* and *North Coimbatore.*

18. *Rewards.*—Nil.

19. *Patrol system.*—Special patrol parties were occasionally organized in *Kollegal, Madura* and *Tinnevelly.*

Beyond the publication in the District Gazettes of the usual notice of warning to the villagers against setting fire to the reserved forest, no other special measures were taken such as closure, enhancement of grazing fees, etc.

(b) *Protection from fire.*

(Calendar year 1924.)

20. *Special protection.*—The area attempted to be specially protected during the calendar year 1924 was 242,311 acres against 241,977 acres in the previous year and the cost of protection Rs. 3,808 against Rs. 5,285 the previous year. The decrease in the cost of fire pretection is due to a larger area having been treated under the early burning method.

21. The area burnt during the year is reported to be 5,909 acres against 13,009 acres in the previous year, the percentage of successful protection being 95.9 against 94.6 in the previous year.

I fear the figures furnished give an unduly favourable impression of the state of fire protection, but as I only took charge after the close of the year I cannot state this definitely.

22. *General protection.*—The area under this heading was 1,762,559 acres of which 24,933 acres were burnt, against 1,762,825 acres the previous year when 14,430 acres were burnt. The increase in the area burnt was mainly in *Kollegal* and *North Coimbatore* due to the exceptional drought.

The number and origin of fires are compared in Appendix A.

23. The average cost per square mile of special protection and general protection was Rs. 10 and As. 8 respectively per square mile attempted.

(c) *Protection against cattle.*

24. The revised grazing scheme for Udamalpet in *South Coimbatore* received the sanction of the Chief Conservator. The number of cattle is in excess of the amount of fodder available.

2,367 square miles of forests were open to grazing against 2,270 square miles in the previous year. In addition 282 square miles were open to all animals except browsers. Goats were excluded from all reserves.

25. *Incidence of grazing.*—In *Kollegal* the incidence was 7.8 acres per cow unit against 6.1 in the previous year. This includes many inaccessible and rocky areas. In *South Coimbatore* the incidence was 15.5 acres per cow unit against 14.9 in the previous year, but the area open to grazing includes shola forests and grass hills of the upper Anamalais where cattle are seldom or never taken for grazing. The grazing incidence in *North Coimbatore* fell from 5.2 acres in 1923-24 to 4.4 in 1924-25, in *Madura* from 12 to 9 acres and in *Tinnevelly* from 3.9 to 3.6 acres.

The number of cattle impounded was 21,783 against 17,477 in the previous year and 18,126, the average of 3 years ending with 1923-24. The increase was in *Coimbatore* due partly to the withdrawal of the concession of free grazing permitted during 1923-24.

26. *Protection against injuries due to natural causes.*—The amount of damage being done by 'spike' in *Kollegal* and *North Coimbatore* year after year is horrible. To check its spread the uprootal of all trees affected was carried out, and they were burnt after removing the scented wood, if any. In *Kollegal* division alone 13,265 trees were so treated at a cost of Rs. 1,069.

27. *Weeds and climbers.*—In *Kollegal* and *North Coimbatore* creeper-cutting was done in sandal working circles over an area of 18,821 acres at a cost of Rs. 726. In *Tinnevelly* weeding operations were carried out in the regeneration areas of Kannikatti range at a

cost of Rs. 342, and in the Kariar teak plantations at a cost of Rs. 437. Climbers on important species of trees were cut as usual by the subordinates free of cost.

28. *Prickly-pear, lantana and strobilanthes.*—In *South Coimbatore* Rs. 176 were spent in Mount Stuart on the experimental burning of lantana, in a plot of 1,000 acres but it was not a success. In *Madura* and *Tinnevelly* the right to remove dead strobilanthes was leased out.

29. *Damage by animals.*—Damage by wild elephants continued in all districts except *Kollegal* where the damage to forest growth is reported to be not much. 7,096 teak plants in the Vannathiparai plantations in *Madura* and the experimental teak sowings at Karaipalayam in *North Coimbatore* are reported to have been much damaged.

30. *Damage by rain and floods—Kollegal.*—The unprecedented heavy floods in the Cauvery in July and August 1924 washed away the main bridge at Sivasamudram and seriously damaged the smaller bridges thus causing serious dislocation of traffic over the road to Maddur railway station.

In *North Coimbatore*, all sandal nurseries near the bank of the Bhavani were washed away by the high floods. In *Madura*, there was considerable erosion on the steep hills to the west of the Cumbum valley where fuel coupes had been worked.

CHAPTER III.—SYLVICULTURE.

SECTION 1.—FORMATION AND REGENERATION.

(i) *General progress of areas under regeneration.*

31. *Kollegal.*—Spike and fires continue to kill many thousand sandal every year in *Kollegal* and *North Coimbatore*. Very shortly there is likely to be a fall in the sandalwood revenue of about 75 per cent.

Bambusa arundinacea has started flowering gregariously in all the three Coimbatore divisions.

North Coimbatore.—The experimental regeneration work in the Minchiguli valley undertaken in previous years was discontinued as the experiment proved expensive and unsuited to the locality.

South Coimbatore.—An area of 226 acres in the Mount Stuart working circle was sown with teak (after clear felling) and the crop established during the year.

1919—*Regeneration area, 28.50 acres.*—The height growth varies from about 15 ft. in the very poorest parts to 32 ft. in the best. The average height of the better parts is about 27 ft. and

in the poorer parts about 18 ft. The growth is very patchy, and far from uniform. The most disappointing feature is the prevalence of forking. The most vigorous stems appear to fork as much as the less sturdy ones.

1920—*Regeneration area, 8.30 acres.*—This area, is practically speaking, a failure.

1921—*Regeneration area, 29.10 acres.*—Here the height growth of the teak varies from 10 ft. in the very poorest bits to 27 ft. in the best parts. The average for the better areas is about 25 ft. and for the poorer areas about 15 ft. Here again as in the 1919 regeneration area forking is only too common.

1922—*Regeneration area, 126.08 acres.*—This is the best of the areas on the hill-side facing Anaipadi. The height of the teak in the very worst places is 9 ft. and in the best, 25 ft. The average height for the whole area is about 16 ft., but many patches are much better, than this. Here again, forking is common, but not quite to the same extent as in 1919 and 1921 areas.

All the above areas are in the same locality, and the locality does not seem to be quite suitable for growing pure teak.

1923—*Regeneration area, 193.50 acres.*—This area is considerably better than the older ones. Forking is uncommon, at present any way. The best areas have a height growth of 18 ft. which is excellent for teak which is only two years old. Excluding patches where the soil is obviously unsuitable, the average height of the teak in this regeneration area is 11 to 13 ft.

Punachi.—An area of 25.00 acres was similarly established with teak in the Punachi working circle. Further concentrated regeneration in Punachi has been stopped as the results have been very poor, and the cost exceptionally high.

Madura.—Natural regeneration in the Cumbum valley and in the valleys of the Palni hills and that by coppice in the fuel areas are reported to be generally good. In the upper slopes of the Anjikulipatty series where teak and *Anogiessus* occur, the coppice growth is good, and in the Methugamalai north series coppice regeneration of *Albizzia, Chloroxylon* and *Premna* is most vigorous. Sandal is spreading naturally in patches in several parts of the district and regeneration in the reserves near Mulayur is reported to be exceptionally good.

Tinnevelly.—Natural regeneration from both seedlings and coppice is reported to be good on the whole but bad where *Strobilanthes* or grass occur. In the sholas, the regeneration from *Pygeum, Hardwickiapinata, Diospyrus, Balanocarpus, Gluta* and *Chickarasia*

has been good all round parent trees. Prolific growth of *Acacia arabica* seedlings is met with in the Muttur tank, Wolf Hill reserve. Sandal in the Alagarcoil valley is still spreading.

(ii) *Establishment of reproduction under working plans or schemes.*

(a) Mainly natural.

32. *North Coimbatore.*—In the hill slopes near Kunjapanai, Jacknari timber coupes and Mannar sandalwood compartment which are closed to grazing, there are young natural sandal seedlings growing satisfactorily.

(b) Mainly artificial.

33. *North Coimbatore.*—Sixty-six acres in Mannar sandalwood compartment were dibbled with sandal seeds. Many seedlings died of drought and many others were damaged by the unprecedented floods in the Bhavani.

South Coimbatore—Mount Stuart working circle.—226 acres clear-felled in 1924 were sown with teak $4\frac{1}{2}' \times 4\frac{1}{2}'$ and with *Terminalia tomentosa* in marshy places. Casualties were replaced during the monsoon by planting seedlings from dumps. Clean weeding was adopted. The height growth varied from 2 ft. in the worst areas to 7 ft. in the best—average about 4 ft.

260 acres were clear-felled, and burning was in progress at the close of the year.

Punachi working circle.—Twenty-five acres clear-felled and burnt last year were dibbled with teak $4' \times 4'$ and weeded. Twenty-five acres were clear-felled during the year, but as the cut material was green no burning could be done.

(c) Afforestation.

34. *North Coimbatore.*—The experiment in shola reclamation near Aiyanagiribetta undertaken in previous years was discontinued under Conservator's orders, as it was more than doubtful whether these few additional acres of shola forests would appreciably affect the water-supply in the plains or improve the yield capacity of the surrounding deciduous forests.

(iii) *Plantations and other forms of regeneration not under working plans or schemes.*

35. *Plantations—Tinnevelly.*—Fifty-six acres of teak plantations were added to the existing plantations at a cost of Rs. 2,024 for the first year's maintenance.

Other forms of regeneration not under working plan or schemes —Kollegal.—The one chain sandal plots raised in the past were maintained and others added.

In the former there were 9,942 and in the latter 14,686 seedlings. These figures are misleading, as in many cases there are hundreds of seedlings in a plot whereas only half a dozen are required.

North Coimbatore.—Similar sandal extension work to that mentioned in *Kollegal* continued in this district also and 9,450 seedlings were raised during the year.

South Coimbatore.—The attempt to introduce sandal at Mount Stuart was a failure.

Madura.—Out of 666 sandal seedlings reported as surviving in last year's report many have died for want of timely rains and only 142 are now existing. Sandal seeds were sown departmentally in some of the reserves and only 46 are reported to be surviving. The results are disappointing.

Tinnevelly.—During the year further experimental regeneration operation in the shola forests was stopped after going over 21½ acres at a cost of Rs. 177-8-0. Cutting of inferior species below 18 inches in girth was done.

Seeds of *Hopea, Mesua, Dalbergia latifolia, Artocarpus hirsuta, Terminalia tomentosa* and rosewood were dibbled in the regeneration areas of Kannikatti and Kodamadi ranges.

As in other districts, sandalwood extension work was undertaken on the lines already described and 2,342 seedlings raised.

(iv) *Tending.*

36. *North Coimbatore.*—Creeper cutting in Mannar sandalwood compartment was done at a cost of Rs. 212.

South Coimbatore.—Pulling out lantana and clearings in the felled coupes of Pollachi and Udamalpet ranges were executed at a cost of Rs. 705. Thinning in the 1919 regeneration area of the Mount Stuart working circle was done at a cost of Rs. 129. The prescribed weedings in the regeneration areas at Mount Stuart and Punachi were undertaken.

Madura.—All the sandal areas in the district were periodically tended by the subordinates free of charge.

Tinnevelly.—The necessary weeding was done in the teak plantations and thinning was carried out in 1917 teak plantations at a cost of Rs. 170. 5,352 saplings were thinned and sold for Rs. 363. In 1923-24 Kannikatti area, girdling of inferior species up

to 24 inches in girth was carried out over 50 acres at a cost of Rs. 89 and in 1922-23 and 1923-24 (Kodamady) areas at a cost of Rs. 115 over 52 acres.

(v) *General.*

37. *South Coimbatore.*—Bambusa has been flowering and dying in patches in several parts of the Tunacadavu range during the last few years including the Mount Stuart working circle. Very little natural regeneration of timber species is to be seen. In one such place near the Ulandy ridge where a fire had followed the death of bamboos, the area is now a mass of weeds and climbers about 12 ft. high. A very few *Terminalia tomentosa* and rosewood seedlings were found but no other useful species.

Madura.—Weeding was done in the Vannathiparai teak plantation and Valankombai plantation at a cost of Rs. 137. The cutting of creepers on standards and other useful species was carried out by the subordinates free of cost.

Section 2.—Tending of the growing stock.

Creeper-cutting for the benefit of sandal was done over an area of 13,821 acres in *Kollegal* at a cost of Rs. 340 and in *North Coimbatore* over an area of 5,000 acres at a cost of Rs. 174, besides uprooting and burning spiked trees to check the spread of spike. Climbers on important species were cut as usual by the subordinates free of cost.

CHAPTER IV.—EXPLOITATION.

System of Management.

(a) *Major Produce.*

38. The area under working plans including the temporary schemes sanctioned, during the year was 1,433 square miles and the various sylvicultural systems in force are shown below.

	Area in square miles.	Percentage to the total area under working plans.
Selection method	343	24·02
Simple coppice	380	26 61
Coppice with standards	143	10·01
Unworked or other fellings	562	39·36
Total ...	1,428	100

The forests in Kodaikanal and Palni ranges in *Madura* and 29 square miles of forests in *Kollegal* which are not under any working plan are also worked under the simple coppice system. Dead sandalwood and that damaged by elephants in *Tinnevelly* was collected departmentally and sent to Vellore for sale.

(b) *Minor Forest Produce.*

39. Bamboo coupes were leased as usual to contractors except in parts of *Kollegal* where removal on permits was allowed. Honey and wax were collected departmentally in *Kollegal*. Elsewhere all minor forest produce was leased.

40. In *North Coimbatore*, 688 tons of fodder grass were removed by consumers and purchasers.

Agency of Exploitation.

(i) *By Departmental Agency.*

41. *Major produce.*—Timber and sandalwood were extracted as usual departmentally. The extraction of drag poles in *North Coimbatore*, coverssion of spokes and felloes from the top ends of teak trees felled in *South Coimbatore* and the collection of dead and wind-fallen trees in *Madura* were also done departmentally.

2,113 c.ft. of *Terminalia tomentosa* and 3,173 c.ft. of rosewood were shipped to London for sale through the agency of Messrs. Howard Brothers. The shipments sent were reported to be of the best quality so far received by the firm.

42. *Minor produce.*—The quantity collected departmentally is very small.

(ii) *By Purchasers.*

43. Fuel coupes in all the districts and one timber coupe in *North Coimbatore* for extraction of dead trees were sold standing. The agricultural implements coupes and 8 fuel coupes in *Kollegal* were worked under the regulated permit system.

44. *Minor Forest Produce.*—Bamboo coupes in all the districts except 2 coupes in *Kollegal* and the collection of other minor forest produce except honey and wax in *Kollegal* were in the hands of contractors.

45. *By right and privilege holders.*—The quantity and estimated value of the different kinds of produce removed by right

and privilege holders and free grantees is shown in the following statement:—

—	Timber in thousands of cubic feet.	Value.	Fuel in thousands of cubic feet.	Value.	Bamboos in value.	Grazing value.	Other minor produce value	Total.
		Rs.		Rs	Rs.	Rs.	Rs.	Rs.
Right and privilege holders.	..	..	..	..	..	1,272	479	1,751
Free grantees ..	17	6,118	2	212	2,462	187	..	8,979

Cattle up to 30 in number belonging to a temple in grazing block II of *South Coimbatore* were allowed to graze free. In *Madura* the right to free grazing, in the Ampthill Downs reserve was continued. 4,987 heads of cattle grazed free in the Ampthill Downs reserve. In *Tinnevelly*, the removal of the usufructs of palmyra trees to the value of Rs. 479 was allowed.

46. *By free grantees.*—The grants made were chiefly for rebuilding houses destroyed by fires or floods.

47. *Outturn and sources of forest produce.*—The subjoined statement shows the total outturn of major produce and the total value of minor produce from all classe of forests by all agencies during the year and under report as compared with the similar details for the preceding year.

Agency of exploitation.	Timber and sandalwood in thousands of cubic feet.		Fuel in thousands of cubic feet.		Bamboos in value.		Minor produce including grazing in value.	
	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.
					Rs.	Rs.	Rs.	Rs.
By Government agency.	167	184	2	8	201	62	3,058	2,162
Purchasers	343	243	3,350	2,701	34,695	32,031	2,34,721	2,22,926
Right and privilege holders.	..	..	..	..	..	..	1,290	1,751
Free grantees ..	34	17	..	2	16	2,462	474	187
Total ..	544	444	3,352	2,711	34,912	34,555	2,39,543	2,27,026

48. *By Government Agency—Timber.*—The increase was mainly in South Coimbatore due to the experimental extraction of timber with tractors by the Exploitation branch in addition to the usual quota from the district. Timber extracted by the Development branch for building works in *Tinnevelly* partly contributed to the increase.

Fuel.—The increase was chiefly in *Madura* due to the extraction and sale of blue-gum trees on road margins in Kodaikanal.

49. *By purchasers—Timber and fuel.*—The decrease under these headings was in *Kollegal, North Coimbatore* and *Madura* due to non-sale of timber and fuel coupes and to the realization of smaller amount from dharkast lands—always a fluctuating item.

Bamboos.—The decrease is ascribed to non-sale of 2 coupes in *South Coimbatore* and to poor prices realized at the sales in *Kollegal.*

Grazing and minor forest produce.—The decrease was in *Kollegal* due to heavy mortality among cattle in 1923-24, and in *South Coimbatore* to poor prices realized at the auctions.

50. *Free grants.*—The decrease under timber and fuel was due to larger grants made in *Tinnevelly* for reconstruction of houses damaged by floods in 1923-24.

The increase under bamboos was in *North Coimbatore* for building houses damaged by the floods of 1924.

CHAPTER V.—FINANCIAL RESULTS.

51. The revenue and expenditure of the year is compared with that of 1923-24 :—

	1923-24.	1924-25.
	RS.	RS.
Revenue	13,23,773	* 11,69,954
Deduct Refunds	— 1,670	— 5,058
Net ...	13,22,103	11,64,896
Expenditure.		
B. Conservancy and works including 52-A. Capital outlay.	3,84,203	† 3,02,747
C. Establishment	4,24,070	4,06,282
Total ...	8,08,273	7,09,029
Surplus	5,13,830	4,55,867

* Includes Rs. 39,106 the revenue pertaining to 1923-1924 adjusted in 1924-25.
† Includes Rs. 3,001, the expenditure incurred in connexion with the British Empire Exhibition adjusted in North Coimbatore accounts.

52. Sixty-eight per cent of the revenue was derived from major produce, 11 per cent from minor produce, 11 per cent from grass and grazing and 10 per cent from miscellaneous items. Thirty-four per cent of the expenditure was incurred on exploitation, 19 per cent on upkeep and improvement and 47 per cent on miscellaneous items.

53. *Receipts.*—The decrease was due to (i) the depression in the timber market and the realization of a smaller amount from Messrs. Howard Brothers; (ii) postponement of working of a sandal coupe in *Kollegal* and non-sale of a timber coupe in *North Coimbatore* and of 3 fuel and 2 bamboo coupes in *South Coimbatore;* (iii) cancellation of the three year fuel agreements in Ayyalur range in *Madura;* (iv) realization of smaller revenue under grazing in *Kollegal* on account of heavy mortality among cattle; and (v) poor prices fetched at minor produce auctions. The revenue outstanding at the end of the year was Rs. 93,897, of which Rs. 29,777 fell due within the year. The estimated value of timber at sale depots at the end of the year was Rs. 2,20,117 which exceeded the value of the stock at the end of the previous year by Rs. 75,908; this is principally due to a stock of unsold timber amounting to 123,008 c.ft. at the Pollachi depot.

EXPENDITURE.

54. *B. Conservancy and Works, 52-A. Capital outlay, Rs.* 81,456.—The decrease was due to the extraction of a smaller quantity of sandalwood, reduction of expenditure on elephant capturing operations, purchase of livestock and repairs to elephant gear and tram trucks, and constitution of a separate Engineering branch to undertake important road and building works.

C. Establishment—Rs. 17,788.—The decrease was (i) on account of the transfer of three officers of the Madras Forest Service to other circles, (2) not holding a vernacular training school session during the year, and (3) not debiting half the cost of Forest Engineer's establishments as in previous years.

CHAPTER VI.—RESEARCH AND EXPERIMENTS.

55. *Kollegal.*—Sandal seedlings were raised as in the two previous years.

In the Hanur rest house compound the seedlings of 1922 are reported to be as much as 7 ft. on an average.

The experiment of burning the grass round the sholas in the Doddasampagai reserve was continued and was found to be effective in preventing fires, reaching the sholas and in protecting the tree growth in the grassy patches from the disastrous effect of late heavy fires.

The *Acacia dealbata* and *Erythrina lithosperma* seedlings of 1921 in the nursery near Bellaji in the Doddasampagai reserve are reported to be doing well. There are about 20 vigorous saplings of the first species of about 20 ft. in height on an average. The best have begun to seed and young seedlings have sprung up naturally. The experiment shows that *Acacia dealbata* is the better

suited for introduction in the extensive grassy patches on the higher slopes of this reserve.

South Coimbatore.—In this district 306 sandal seedlings were raised in Udamalpet range, but an attempt to introduce this species elsewhere was a failure.

Thirteen acres were sown with seeds of rosewood in the Topslip and Mount Stuart plantations in order to try and introduce it as an underwood to teak.

Madura.—Experimental thinning of coppice shoots continued during the year also and the results are not conclusive.

Tinnevelly.—Test measurements of saplings in the sample plot at Kannikatti were recorded in the journals to show the effect of removal of overwood.

CHAPTER VII.—ADMINISTRATION.

56. Since 22nd October 1924 the Range Officer, Nanguneri range, has been placed in charge of *Tinnevelly* range also prior to their being finally amalgamated. Proposals for amalgamation have been submitted to the Chief Conservator.

A list of officers who were in charge of the circle and of the several districts therein is appended to this chapter.

57. *Health of the establishment.*—The health of the establishment continued to be somewhat unsatisfactory in all the districts except *Tinnevelly* where it is reported to have been good except in the Kannikatti and Kodamandi ranges. These ranges are reported to have become more malarious in recent years. Two foresters, 6 forest guards, 1 watcher and 2 peons died of malaria and 1 forest guard of cholera.

58. *Sanitation.*—A sum of Rs. 365 was spent in clearing and burning undergrowth round Mount Stuart and Attakatti as an anti-malarial measure. Proposals have been submitted to provide the staff located at these two places with mosquito-curtains and cots.

The anti-malarial party camped at Mount Stuart during the third week of June 1924 and carried out investigations with a view to transferring the headquarters of the Tunacadavu range to Topslip.

59. *Tours.*—The Hon'ble Sir Arthur Knapp, Executive Council Member, inspected the proposed site of the new Forest Settlement at Topslip during December 1924, and toured in the Kannikatti and Kodamadi ranges of the *Tinnevelly* district. The Chief Conservator of Forests inspected the Mount Stuart forests, and the pine and eucalyptus plantations and Gundar valley reserve in the *Madura* district.

The Conservator of Forests visited all the districts excepting the reserves of *Madura* during the year and spent 185 days on tour.

All the District Forest Officers spent more than the prescribed minimum period in camp. The District Forest Officer, *South Coimbatore*, paid a visit to Coorg towards the close of December 1924 to study the effect of burning forests overrun with lantana.

60. *Inspection of offices by the Conservator of Forests.*—All the District Forest Offices in the circle were inspected by the Conservator and the general result was satisfactory.

Inspection of offices—By District Forest Officers.—All the range offices in the circle were inspected during the year by the respective District Forest Officers.

61. *Audit of District Forest Office accounts.*—The accounts of all District Forest offices were audited by the staff of the Accountant General's office, and the results were satisfactory.

62. *Madras Forest College.*—No subordinate was deputed for training at the college. One student deputed for the 1922-24 course returned with Honours.

63. *Vernacular Training School.*—No school was held in the circle.

District.	Name of officer.
Direction ...	H. F. A. Wood, Esq , from 1st April 1924 to 12th October 1924.
	A. Wimbush, Esq., from 13th October 1924 to 31st March 1925.
Kollegal ...	M.R.Ry. J. Sadasiva Ayyar Avargal, B.A., from 1st April 1924 to 31st March 1925.
Coimbatore, North.	R. S Browne, Esq., from 1st April 1924 to 22nd March 1925.
	J. E. M. Mitchell, Esq., from 23rd to 31st March 1925.
Coimbatore, South.	M. F. Bridge, Esq., from 1st April to 7th July 1924.
	J. D. Connolly, Esq., from 8th July 1924 to 23rd March 1925.
	R. S. Browne, Esq., from 24th March 1925 to 31st March 1925.
Madura ...	H. R. M. Law, Esq., from 1st April 1924 to 28th January 1925.
	D. F. Stileman, Esq., from 29th January 1925 to 31st March 1925.
Tinnevelly ...	M.R.Ry George Venugopal Avargal, B.A., from 1st April 1924 to 31st March 1925.

CHAPTER VIII.—GENERAL.

(1) *Formation and Management of Panchayats.*

64. No new panchayats were formed during the year.

The term of working of 4 panchayats in *Madura* having expired, it was extended by one year from 1st July 1924. No panchayat for Permalmalai and Karadikuttu reserves could be formed as the villagers were unwilling to co-operate.

As a result of the mismanagement of the Andiyur village panchayat, the Revenue Divisional Officer proposed its dissolution and the Collector, Coimbatore, has, after the close of the year, issued orders to take over its management by the Revenue authorities as the whole area is an unreserved land.

(2) *Measures for improving local supplies and facilities.*

65. *Manure-leaf supply.*—Except in two ranges in *Tinnevelly* no leaf manure was removed from the reserves.

Supply of fuel and agricultural implements.—The fuel coupes near *Kollegal* were as usual sold standing to contractors; but the rates were as usual very low. Seven small village coupes were opened for the benefit of the villagers and worked under the controlled permit system. The rate charged is annas 10 a cart-load, and the felling is done by the villagers.

The scheme for the purchase at seigniorage rates and removal by the villagers of timber and agricultural implements from the agricultural implements coupes continued to be in force during the year. This was also worked under the controlled permit system The concessions granted as a result of the Forest Committee's Conference in 1921 in the matter of grazing, penning, etc., were continued during the year.

North Coimbatore.—Four small timber felling series opened in Satyamangalam range last year for supply of ploughs and small timber to the plain villages continued to be worked during the year; but the working of the 3 coupes in Talamalai range had to be abandoned as the ryots were unwilling to get their requirements from Government coupes. Permits for removal of thorns from fuel coupes and bamboos from 3 coupes were also issued.

South Coimbatore.—Spokes and felloes obtained by conversion from the top ends of trees felled departmentally in the Mount Stuart working circle and from dead and dying trees in the Villoni valley were offered to the public at the sale depot at Pollachi. Brake-poles were cut departmentally and sold to the public through the agency of a contractor, at the 17th mile of the Anamalai ghat road, and also sold direct to cartmen at Attakatti at 2 annas each.

The attempt to sell an agricultural implement coupe in Pollachi range failed as the villagers resorted to illicit removals.

Madura.—The demands of the villagers were as usual met by the coupe contractors in accordance with the terms of their agreements.

Tinnevelly.—As in previous years permits were issued by the Revenue department for the removal of babul trees for agricultural implements from the unreserves,

(3) *Improvement of water-supply in grazing grounds.*

66. *Madura.*—An old pond was repaired at a cost of Rs. 182 and it contained 2 ft. of water in the hot weather.

67. *Jungle tribes.*—The hill tribes were employed in the same way as reported last year.

(4) *Mining and quarrying.*

68. The Public Works department was permitted to quarry metal free of cost for the use of the Anamalai ghat road.

(5) *Live-stock.*

69. *Elephants.*—In *South Coimbatore* there were 17 elephants at the beginning of the year, 5 were captured and 3 transferred from Nilambur thus making a total of 25. Of these 3 died leaving a balance of 22 with an estimated value of Rs. 77,300.

Other animals.—At Mount Stuart there were 50 bulls and 50 buffaloes at the commencement of the year. One bull was purchased at a cost of Rs. 135 and two buffaloes valued at Rs. 160 transferred from Dhoni, making a total of 51 bulls and 52 buffaloes. Of these one bull was destroyed, 4 buffaloes died and 3 were sold. leaving a balance of 50 bulls and 45 buffaloes, their aggregate value being Rs. 9,291.

(6) *Veterinary Assistant.*

70. The live-stock was in charge of an Assistant Veterinary Inspector and was inspected by the Inspector of Live-stock thrice during the year.

(7) *Civil Suits.*

71. In *Madura* the suit filed by a fuel coupe contractor was decreed against the department and an appeal has been preferred against this order.

In *Tinnevelly* a razinama was filed in the suit *re* : Aruguli tope. According to it, the price of the tope has been fixed at Rs. 45,000 and the defendant has deposited Rs. 22,500 in Court. The other half is to be paid in two instalments on 10th June 1925 and 10th December 1925.

(8) *Control of unreserved lands by Forest department.*

72. The department has no control over unreserved lands in the circle except over the sandalwood working circles in *Kollegal* and also over an area of 866 acres of unreserves included in the Bargur sandalwood working circle and exploited for bamboos along with Tamarakerai bamboo working circle.

D. T. BARRY,
Conservator of Forests,
Fifth Circle.

COIMBATORE,
18th August 1925.

ANNUAL ADMINISTRATION REPORT OF THE FOREST DEPARTMENT

FOR THE

YEAR ENDING 31ST MARCH 1925

SIXTH CIRCLE

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

1. ALTERATION IN AREA.

(1) *Reserved Forests.*

The total area of reserved forests in the circle increased from 1,844 square miles to 1,849 square miles due to the transfer in *the Nilgiris* of 3,000 acres from reserved lands.

2. Two small areas were disreserved during the year (5 acres in the *Wynaad* and 17 acres in *Palghat*).

(2) *Reserved Lands.*

The area under reserved lands decreased by 5 square miles due to the transfer to reserved forests.

2. FOREST SETTLEMENTS.

3. 4.69 square miles in *the Nilgiris* (Sigur reserved forest) were finally notified during the year.

4. The draft notification under section 16 in respect of the Mudumalai forests in *the Nilgiris* referred to in the last year's report is under scrutiny in this office and the notifications in respect of all the additions except addition No. II to Medanad reserved forest were submitted to the Chief Conservator of Forests, but returned for further action in respect of the formal admission of certain rights of way.

3. DEMARCATION.

5. During the year under report about 12 miles of new boundaries were demarcated (10 miles in the *Wynaad*, part of Tirunelli reserved forest and the whole of Ontangadi reserved forest—and 2 miles of Kottanikunnu reserved forest in *Palghat*).

6. The usual reclearing of boundaries was caried out in *North* and *South Mangalore* and *Palghat* divisions and in parts of the *Wynaad*. In Nilambur reclearing was done as part of the fire-protection operations. In *the Nilgiris*, the special staff entertained in May 1924 for the general verification and demarcation of reserves was disbanded from 1st September 1924, but the work of verification was continued by an Extra Assistant Conservator of Forests. Petty encroachments were detected and these have either been leased or evacuated.

4. Forest Surveys.

7. There was no survey by survey parties during the year.

8. The survey of coupes, plantations, roads, etc., was carried out by the subordinates.

9. The reference maps were maintained in all the divisions.

10. In the *Nilambur* division, a special cruising party of the Engineering branch made a detailed contour survey and stock-map of the Nellikutha reserve.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. Regulation of Management.

Preparation and Control of Working Plans.

11. In the *North Mangalore* division, the scheme for the extraction of Catechu trees in the reserves and unreserves of the Coondapur range referred to in the last year's report was submitted to and approved by the Chief Conservator after the close of the year. The areas of coupes in one of the fuel working circles of the Coondapur range, which were found to be too extensive to be worked in a year, were reduced with the sanction of the Chief Conservator of Forests thus forming two working series, a coupe in each being worked simultaneously.

12. In the *South Mangalore* division, the District Forest Officer is preparing schemes for exploiting over-mature timber from portions of Nalkur and Aletti East reserves. These forests were inspected by the Conservator and necessary instructions were issued.

13. The prescription of felling, viz., 'Coppice with standards' relating to the Muliyar working circle was changed into 'simple coppice' and the prescription regarding broadcast sowing of *Hopea* was cancelled.

14. In the *Wynaad* division, the reconnaissance work started last year covering the *Wynaad* forests including the *Nilgiri-Wynaad* was completed and the reconnaissance report was sent to the Working Plans Conservator after the close of the year.

15. In the *Nilambur* division, it is expected that the final fellings which had fallen into arrears will be brought up to date by the end of 1926-27.

16. In *the Nilgiris*, the scheme for the conversion of the Coonoor Acacia working circle referred to in the last year's report was sanctioned by the Chief Conservator of Forests. A scheme for a further felling series for a period of twenty years in the Coonoor Eucalyptus working circle was drawn up and the Chief Conservator's approval obtained for five years from 1925-26. An addendum for a further felling series for five years from 1924-25 in the Aramby and Cairn Hill working circles and in the Snowdon Acacia working circle was also sanctioned. A scheme for the extraction of sandalwood in the reserves of Sigur and Coonoor ranges drawn up by Mr. Narasimha Ayyangar, Extra Assistant Conservator of Forests, is under revision.

17. In the *Palghat* division, preliminary reports prepared by Mr. D. McD. Currie, Deputy Conservator of Forests, on the revision of the working plans for the Walayar and Bolampatti forests were sent to the Working Plans Conservator after the close of the year.

18. The prescriptions of the existing working plans and schemes were generally followed.

2. Communications and Buildings.

Roads and Bridges.

19. There was an expenditure of Rs. 7,176 and Rs. 14,956 on new works and repairs against Rs. 11,444 and Rs. 15,229 respectively in the previous year. There were no new works of importance. The amount spent on new works represents the cost of collection of boulders and metal to improve the slushy portions of the Chedleth-Kolvalli road in the *Wynaad* and alignment and construction of nine miles of inspection paths in the Attappadi and Silent Valley reserved forests.

20. Three hundred and eighty miles of roads, bridle and inspection paths were maintained.

Buildings.

21. The expenditure on new works amounted to Rs. 71,661 against Rs. 33,583 in the previous year and that on repairs amounted to Rs. 8,476 against Rs. 9,023 in the previous year.

The large increase on new works is chiefly accounted for in *Nilambur* due to heavier expenditure on the reconstruction of buildings destroyed in the Mappilla rebellion, in the *Wynaad* due to the construction of buildings in connection with an additional range and the exploitation establishments and in *South Mangalore* due to the construction of a new Range office and Ranger's quarters at Uppinangadi, the old buildings having been destroyed in the floods of August 1923.

22. The important new works were :—

North Mangalore.

	RS.
Completion of the Range office at Karkal and construction of quarters for subordinates at Sitanadi	3,896

South Mangalore.

Range office and quarters at Uppinangadi	5,670

The Wynaad.

Quarters for the Ranger, clerk and peon of the Sultan's Battery range	7,906
Quarters for the Exploitation Ranger and his peon at Chedleth	5,800
Serambis for the Exploitation Ranger, Forester and Guard at Boothakkal	1,997

Nilambur.

Reconstruction of the District Forest office	5,295
Rest-house at Nedungayam	4,427
Ranger's and subordinates' quarters	20,302
Acquisition of building site at Karulai	1,108

The Nilgiris.

Subordinates' quarters at Benne, Nanjanad, Hulikal and Bandyshola	3,142
Rangers' rest-house at Benne	429

Palghat.

Timber bungalows at Aruvamparai, Walghat and Havelocks	1,846
Outhouses at Thadagam	635

Miscellaneous Other Works.

23. The expenditure on new works, Rs. 3,485, mostly represents the sinking of wells for subordinates' quarters. The improvements to the Kumaradhari river to facilitate transport of fuel by water, undertaken at the close of the last year, were completed during the year.

3. Protection of Forests.

(a) *General Protection.*

24. The following statement compares the total number of forest offences reported during the year under report with those of the previous year :—

Cases.	Fire.		Felling.		Grazing.		Other offences.		Total.	
	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.
Cases taken to court ..	34	32	145	126	37	48	36	24	252	230
Cases compounded ..	68	95	986	801	272	257	109	110	1,435	1,263
Cases undetected ..	95	91	1	3	..	..	4	..	100	94
Total ..	197	218	1,132	930	309	305	149	134	1,787	1,587

It will be seen that the total number of offences during the year fell by 11 per cent as compared with the previous year, the decrease occurring under all classes except that of injury by fire, which shows an increase chiefly contributed by *South Mangalore* due, as stated last year, to the burning of unreserves for kumri cultivation. The decrease occurs mainly under unauthorized felling in *North* and *South Mangalore* and is ascribed to the concessions granted by the Chief Conservator of Forests, while there is an increase in *Palghat* due, it is stated, to the introduction of gang patrols in Bolampatty range. Protection in the Mannarghat range is stated to have improved.

25. The percentage of cases prosecuted was 14.9, and the percentage of conviction in prosecuted cases was 58.2. This apparent low percentage is due to the fact that cases in which compounding fees were paid in court had been treated as acquittals, and the number of such cases was 78 forming 28.2 per cent of the total number of cases disposed of in court.

26. The amount of compounding fees realized was Rs. 20,218 against Rs. 22,210 in the previous year. The decrease occurs in all the divisions, and it is appreciable in *Palghat* due to less collection in the unreserves in spite of the increase in the number of offences, and to the levy of light compounding fees in the offences committed in the reserves as they were not serious.

27. The average compounding fees realized was Rs. 16-4-0 per case and Rs. 7-6-0 per person.

Rewards.—In *North Mangalore*, a reward of Rs. 25 was granted after the close of the year to a Sub-Inspector of Police and to the informant in a sandalwood case detected during the year.

28. In *South Mangalore*, a reward of Rs. 25 was sanctioned and paid to a Forest Guard for his courage in seizing the accused in a case of illicit felling of trees at the risk of his life.

29. In an illicit elephant-shooting case in *the Nilgiris*, a sum of Rs. 160 was disbursed as rewards to the subordinates and the informers and to a police constable. A sum of Rs. 10 was paid from the funds of the Nilgiri Game Association as rewards to the subordinates in this division.

(*b*) *Protection from Fire.*

30. *Special protection.*—The period dealt with is the calendar year 1924.

31. During the year early burning operations were continued in the Ghat forests of the *North Mangalore* division in all the ranges of the *South Mangalore* division, in practically the whole of the *Wynaad* division and in parts of the Mudumalai and Sigur ranges of *the Nilgiris*. There were fires in all such areas during the year. The area burnt is small in *North Mangalore* and *the Nilgiris*, while in *South Mangalore* and the *Wynaad* the area was 4.9 square miles and 2.4 square miles respectively. The District Forest Officer, South Mangalore, reports that the poor result as compared with last year is due to there having been very little rain during the hot weather of 1924. The District Forest Officer, Wynaad, states that the damage done consisted of burning only the grass and weed growth.

32. The old system of protection continued in the other parts of the Circle.

33. It is reported that the system of early burning did not meet with any opposition from the adjoining ryot population in *North* and *South Mangalore* and the *Wynaad*.

34. The area over which protection was attempted was 1,139 square miles against 1,132 square miles in the previous year. The increase occurs in the *Wynaad*, probably due to a larger area brought under early burning and in *the Nilgiris* where a portion of the Kundah reserve was treated under a scheme, whereby certain areas (where fire would do little harm) were set apart and burnt departmentally. The result of this operation was not particularly satisfactory, and a modified scheme of less detailed nature will be prepared before the next fire season.

35. The area successfully protected was 99.2 per cent and the area burnt was 5,667 acres. The cost of special protection (early burning as well as the old system) was Rs. 15 per square mile as in the last year. The cost of early burning varied from Rs. 4-13-0 to Rs. 5-7-0 per square mile, while the lowest rate for protection under the old method was Rs. 18-10-0 per square mile.

36. *General protection.*—The area under general protection was 493,717 acres, of which 2,172 acres were reported to have been burnt.

(*c*) *Protection against Cattle.*

37. The area closed to grazing decreased from 346 to 337 square miles (out of 1,950 square miles of reserved forests and reserved lands in the Circle). The decrease occurs principally in *South Mangalore* due to the opening of areas under *Hopea* regeneration and in *Palghat* to the opening of Walayar reserve to grazing. The whole of the forests in the *Nilambur* division continued to be closed to grazing. Out of the total area of reserved forests and reserved lands 69 per cent was open to all animals except goats and 13 per cent was open to all animals except browsers (sheep and goats). There has been a decrease of 21,288 in the number of cattle authorized to graze chiefly in *South Mangalore* due to the less number of cattle brought to the Kulgunda cattle fair and in *the Nilgiris* to the less number of slaughter cattle.

38. The grazing incidence was—

North Mangalore	...	...	13.7	acres per cow unit.
South Mangalore	...	...	13.3	,, ,,
Wynaad	...	...	17.0	,, ,,
Palghat	...	...	7.5	,, ,,

The grazing incidence in *the Nilgiris* has not been worked out for want of proper data.

39. The number of cattle impounded during the year was 1,933 against 2,602 in the previous year. The decrease occurred in all divisions except *Wynaad* and *Nilambur*.

(*d*) *Protection against Injuries from Natural Causes.*

40. *South Mangalore.*—Some very vigorously growing *Artocarpus hirsuta* seedlings in the Jalsur East natural regeneration area were noticed to be dying. Samples sent to Dehra Dun show that a number of different species of insects were responsible. The Imperial Forest Economist states it is impossible to say what has happened to these plants. The insects merely indicate the usual miscellaneous attack on dead or dying plants. The damage was not extensive, and no more plants have been observed to have died.

The Wynaad.—The Assistant to the Forest Entomologist at Dehra Dun visited the nursery at Doddapallam in January 1925 where teak seedlings were being damaged by caterpillars. The Imperial Forest Entomologist has suggested that no preventive measures can be adopted until the complete life history of the insect is worked out. Some caterpillars have been sent to the

Assistant to the Entomoligst. The damage by these caterpillars extends to teak regeneration areas of one to two years old.

Nilambur.—Defoliators of teak continued to do damage as usual. The investigation conducted by the Assistant to the Forest Entomologist resulted in the identification of 17 species, out of which 5 are reported to do excessive damage. The experiments are being continued in 1925-26 to work out the life history of each species, and to determine the extent of defoliation by each.

41. The floods of last year caused damage to the teak plantations in *Nilambur*, 167 acres of young plantations having been completely destroyed. These are now being reformed. In *the Nilgiris*, the teak nurseries at Moyar and Kargudi were damaged by the floods.

42. Elephants were found to do damage to the young plantations and regeneration areas in the *Wynaad*, *Nilambur* and *Palghat* divisions. Bison and sambur in the *Wynaad*, and sambur and deer in *Nilambur* also caused damage.

43. In *the Nilgiris*, practically every *Alder* plant in the experimental plantation at Lakkidi was killed by frost.

CHAPTER III.—SYLVICULTURE.

1. Formation and Regeneration of Forests.

(i) *General Progress of Areas under Regeneration.*

44. *North Mangalore.*—*Hopea* sowings were carried out over 535 acres prepared for regeneration in the previous year.

South Mangalore.—*Hopea* and *Artocarpus* were sown over 182 acres, and interplanting with a view to reduce the original espacement, was done over 475 acres.

The Wynaad.—Teak seeds were dibbled over 20 acres and *Hopea* sowings were done over 123 acres; stump-planting of teak was done over 9 acres.

Nilambur.—Planting and sowing over 204 acres of plantation and conversion working circle were undertaken.

The Nilgiris.—In the area of 100 acres prepared last year in Mudumalai forests 90 acres were planted with teak stumps and 10 acres were sown with Vengai and rosewood. Experimental afforestation work in the Kundahs over an area of 16 acres was undertaken during the year.

Palghat.—Regeneration works of various kinds were in progress in Chenat Nair and 20 acres were finally added during the year.

2. Plantations in the *Wynaad* and *Nilambur* suffered from floods and rain.

(ii) *Establishment of Reproduction under Working Plans or Schemes (Form No. 75 A).*

(a) *Mainly natural.*—Nil.

45. (b) *Mainly artificial.*—In *Nilambur*, 53 acres of original teak plantations clear-felled in Edacode were regenerated. Out of 53 acres, 24 acres were planted with teak, 4 acres were sown with *Bombax*, 15 acres were treated experimentally, of which 6 acres were planted and 9 acres were sown. The sowing of *Bombax* was a fair success. The whole plantation was under water for about a fortnight and parts of the area, 14 acres, were completely ruined. In the others, the casualties were heavy and no seedlings were available to replace them. Young plants are found forked from very near the base and require pruning.

Conversion working circles.—Fifty acres in Walluvassery (*Nilambur* range) were regenerated—16 acres planted with teak 6′ × 6′, 7 acres with Karimarudu and Nirventeak and 27 acres dibbled with *Bombax* 6′ × 6′. This area was also subject to considerable damage by floods, 9 acres of the planted area were completely destroyed, and in the remaining 14 acres survivals amount to less than half and the teak plants are forked. The *Bombax*, being situated on rather high ground, did not suffer from floods, but there has been considerable damage by deer.

In another area of 102 acres in the Amarampalam range, teak was planted 6′ × 6′ over 64 acres except in the first four rows where Karimarudu and rosewood seedlings were put in. Planting was delayed as the nursery was not successful, due to bad seed and defoliators. The portion planted in June was successful. The plantation area was on fairly high ground and did not suffer from floods, but heavy rain was responsible for soil wash and many seedlings were thus destroyed.

The balance area of 38 acres was planted with teak cuttings as an experiment—the result was not a success.

(c) *Afforestation.*—Nil.

(iii) *Plantations and other Forms of Regeneration not under Working Plans or Schemes (Form No. 75 B).*

46. *North Mangalore.*—An area of 535 acres in Halesomeshwar reserve where soil was prepared last year was sown during the year with *Hopea*. A small area of 10 acres was also sown broadcast with the same species. The result is stated to be very successful.

Hopea was also sown in prepared pits dug at intervals of 10′ in lines 12′ apart over 100 acres in Sabladi reserve. The result was fairly successful.

South Mangalore.—Seventy-two acres in compartment VI of Parappa reserve (where *Hopea* sowings were started in 1920-21) were sown with *Hopea* in prepared pits 9′ × 9′ apart. The result of germination is reported to be good, the casualties being about 20 per cent; but the area is reported to be infested with strobilanthes. *Hopea* sowings in the whole of Parappa reserve are now complete.

An area of 110 acres was regenerated in Padnur reserve, 88 acres being sown with *Hopea* and 20 acres with *Artocarpus hirsuta* 9′ × 9′. Sowings were not a great success and about 28 acres were treated as a failure. Another area of 475 acres sown with *Hopea* and *Artocarpus hirsuta* in 1922 at an espacement of 27′ × 27′ were interplanted to reduce the espacement to 9′ × 9′.

An area of 16 acres in Parappa reserve which was unsuited for raising *Hopea* was clear felled and burnt and sown with seeds of deciduous species; the result is reported to be satisfactory. Sowing and planting of deciduous species were also undertaken in 18 acres of a clear-felled timber and fuel coupe and another 2 acres in the same area were sown broadcast. Coppice shoots of useless species were broken and those of superior species were thinned. The result was fair.

Wynaad.—Clear-fellings of natural forests and re-stocking continued. In Begur range, regeneration works were in progress over 31 acres last year; of these in an area of 26 acres where teak seeds were dibbled 6′ × 6′ germination was poor and seedlings about four months old were transplanted to replace casualties, but they were not able to withstand the heavy rains in July and August. The whole area of 26 acres was a failure; similarly, the swampy area of 2 acres in which Mathi (*Terminalia tomentosa*) was sown was also a failure. The area of 3 acres where Vengai (*Pterocarpus marsupium*) and rosewood seeds were dibbled was also not satisfactory. These were burnt and kept ready for sowing teak and mathi seeds in April 1925.

In the Chedleth range where 35 acres were sown with teak in the previous year, germination was not satisfactory, for want of timely showers in April and May. Fifty per cent of the patches were transplanted with four months old seedlings. In March 1925 the whole area was burnt and re-sown. As a result of burning, about 30 per cent of the previous year's surviving seedlings shot up vigorously.

During the year the following works were undertaken. In Boothakal (1924) of Begur range, 9 acres were planted 9′ × 9′ with teak stumps about 1½ years old and the result was good. An area of about 43 acres was given on tuckle cultivation to Kurumbers who were required to sow teak seed 6′ × 6′ along with ragi.

On account of excessive rain this proved to be a failure. A further area of 140 acres was clear-felled, of which 40 acres were burnt and more than half the area was sown with teak seeds 6′ × 6′ by the end of March 1925.

In the Chedleth range, 35 acres were burnt and kept ready for sowing seeds in April 1925.

In the Kannoth range 100 acres were sown with *Hopea* 9 feet apart. The casualties at the end of the year were about 20 per cent. Twenty-three acres in a teak plantation of 1895 were undersown with *Hopea*. Though regeneration was good, the tender seedlings could not resist the heavy drip from teak leaves in the abnormally heavy rains.

An area of 6 acres in 1923 bamboo coupe was sown with *Eriodendron* seed by Kurichiyas along with paddy crop. The result was successful.

Nilambur.—In the Amarampalam range in a locality classed as unfit for teak, *Aiyini* seeds were sown over 40 acres in patches along lines cut 3′ wide and 9′ apart and another 10 acres were planted with jungle transplants. Germination was good, but the result was not encouraging as the seedlings were damaged by pigs, porcupine, etc., and by heavy rain.

The Nilgiris—Hardwood Eucalyptus plantation.—The plantation at Doddabetta was further extended bringing the total area planted to approximately 100 acres. Four acres in Cairn Hill were replanted with bluegum, 12 acres in Bandyshola of Coonoor, Acacia working circle were cleared and replanted with hardwood *Eucalyptus*.

Mudumalai forests.—Regeneration operations over an area of 100 acres of mixed deciduous forests clear-felled were undertaken, 90 acres were planted with teak stumps 15′ × 15′ and 5 acres were sown with Vengai (*Pterocarpus marsupium*) 6′ × 6′ in prepared patches, and similarly rosewood in another 5 acres. The result was unsuccessful partly on account of the unsuitability of the locality, and partly on account of the small stumps used. Casualties were replaced from time to time, and in March 1925 the area was burnt and all teak cut back. This has resulted in a considerable improvement.

Vengai was moderately successful, but the growth is stated to be very slow.

In connection with the fire protection of the Kundahs and restoration of the sholas destroyed by fire, an attempt was made during the year to plant up 16 acres along the stream banks. Seedlings of *Alnus Nepalensis*, *Rhododendron* and *Eucalyptus*, cuttings of willow and kokkil and stumps of *Acacia* were planted and

seeds of *Broom* and *Frenela* were sown. *Alnus* was very promising until the frost in December which killed practically every plant. *Broom* is growing well. Apart from this, the experiment, which is being continued, met with very little success.

Palghat.—The chief item of work in the division relates to regeneration operations in Chenat Nair. An area of 20 acres of plantation was added during the year. In this area, transplanting of *Hopea, Dichopsis, Mesua* and *Calophyllum* plants was done. *Dichopsis* and *Hopea* have come out successful, but not *Mesua* and *Calophyllum.* Most of the other works done during the year consisted of maintaining the previous year's regeneration areas. A teak nursery was formed at Walayar for stump-planting in the felled coupes of Walayar.

(iv) *Tending.*

47. In *North Mangalore,* 1,861 acres of areas sown with *Hopea* were tended. Similar work was done in *South Mangalore* over some 3,300 acres. In the *Wynaad,* tending and replacing of casualties over 330 acres of teak and *Hopea* plantation were done during the year. *Lantana* was uprooted for a third time in twenty-four plantations. In *Nilambur,* all the plantations were weeded twice in the Amarampalam range, and thrice in the *Nilambur* range. In the *Palghat* division, natural seedlings in part of Chenat Nair were freed and the overhead cover in part of the *Mahogany* areas was removed. In the *Nilgiris,* plantations in the Mudumalai range were weeded and tended and casualties in the areas planted up with *Pinus* and *Eucalyptus* in Snowdon and Doddabetta were replaced.

(v) *General.*

48. *South Mangalore.*—Regeneration of bamboos is reported to be satisfactory.

Wynaad.—The result of sowing of teak in areas clear-felled is not favourable as compared with stump-planting in the same locality.

2. Tending Growing Stock.

49. In *South Mangalore,* improvement works in coupes I and II of Nalkur were continued during the year with a view to help the existing advance growth of *Hopea, Artocarpus, Poon* and other valuable evergreen species. Similar work is being carried out since January 1922 and by now coupe I has been gone over three times and coupe II twice. Lines already cut 4 feet wide and 16 feet apart were kept cleared of useless growth, weeds and coppice shoots were cut back and seedlings liberated wherever necessary. The area over which improvement works was done is 650 acres in coupe I and 500 acres in coupe II.

Lantana in two of the fuel coupes covering 117 acres was uprooted and burnt or otherwise destroyed.

In the *Wynaad*, thinning was done in old plantations to an extent of 33 acres. It is stated that several old plantations are badly in need of thinning.

In *Nilambur*, thinning was carried out over 629 acres of plantations. Climber-cutting and removal of parasites and *Loranthus* were done in several plantations.

The Nilgiris.—Thinnings were done over 4 acres of the *Eucalyptus Eugenoides* plantation in Keti, 2 acres of *Cryptomeria Japonica* plantation in Cairn Hill and 10 acres of bluegum plantations in Muthinad and Newman.

Improvement Fellings.

50. *North Mangalore.*—Improvement fellings were carried out over 50 acres in Jarvathu reserve.

Wynaad.—Dead, dying, mature and over-mature trees were cut in sub-coupe D, 300 acres, of Mavinhalla reserve.

CHAPTER IV.—EXPLOITATION.

51. During the year arrangements were made for the supply of sleepers to the South Indian Railway pool, and operations were in progress in *North* and *South Mangalore*, *Wynaad* and the *Nilambur* divisions.

In connection with the above arrangement, a portable saw mill was installed towards the close of the year at Beypore, opportunity being taken at the same time to saw the waste from sleeper cutting into scantlings, reepers, boards, etc.

In addition to the auction sales at Beypore depot, retail sales were reintroduced which are taken advantage of by the public.

Some business with the Madras & Southern Mahratta Railway in the matter of supply of timber to the Engineering and the Loco departments was also effected during the year.

Business in England through Messrs. W. W. Howard Bros. & Co., was continued, and further consignments of *Laurel* and rosewood were despatched during the year.

(*a*) System of Management.

(i) *Major Forest Produce.*

52. The following sylvicultural systems were in force :—

Clear-felling.—200 acres in the *Wynaad* division, 22 acres in *the Nilgiris*, and 196 acres (natural forests) in the *Nilambur*

division were clear-felled during the year, also final clear-fellings over 65 acres of mature teak plantations were undertaken in the *Nilambur* division.

Selection fellings.—Selection fellings in connection with regeneration of *Hopea parviflora* were undertaken over 1,032 acres in the *North Mangalore* division and over 400 acres in the *South Mangalore* division.

Improvement fellings.—Dead, dying, unsound, mature and over-mature trees of teak over 300 acres were felled in the *Wynaad* division.

Simple coppice.—This was in vogue in the case of fuel coupes in the *North* and *South Mangalore* divisions, *the Nilgiris* and the *Palghat* divisions, the area gone over being 1,343 acres.

Unregulated fellings.—This was confined to the extraction of sandalwood in *North* and *South Mangalore* and *the Nilgiris*, the outturn was 48 tons.

(ii) *Minor Forest Produce.*

53. *Bamboos.*—The right to collect bamboos was leased out to contractors in all divisions except in *Nilambur*, where bamboos were extracted departmentally for floating timber.

Miscellaneous produce.—Minor forest produce was collected departmentally only in the Mudumalai range of *the Nilgiris;* elsewhere it was leased out to contractors.

Fodder grass.—This was leased out in the *Palghat* division. In addition, the Military Grass Farms in Bangalore harvested 36 tons of hay from one of the closed areas in the *Palghat* range.

Grazing.—This was, as usual, controlled by permits.

The revenue realized from areas under departmental management (i.e., other than those under panchayats) was Rs. 33,415.

(*b*) AGENCY OF EXPLOITATION.

(i) *Departmental Agency.*

54. Timber and sandalwood were extracted by departmental agency as also bamboos required for floating timber in the *Nilambur* division. A combined timber and fuel coupe in the *South Mangalore* division was also worked departmentally.

(ii) *By Purchasers.*

55. *Major produce.*—Fuel coupes in *North* and *South Mangalore, the Nilgiris* and the *Palghat* divisions were worked by contractors.

Minor forest produce.—Bamboo coupes in the *North Mangalore, Wynaad, the Nilgiris* and *Palghat* divisions were worked through contractors. Permits were also issued departmentally to meet local requirements in *North* and *South Mangalore, the Nilgiris* and *Wynaad.*

Other items of minor forest produce were leased out except in a part of *the Nilgiris.*

(iii) *and* (iv) *by right-holders and free-grantees.*

—	Timber, in thousands of cubic feet.	Value.	Fuel, in thousands of cubic feet.	Value.	Bamboos.		Grazing value.	Other Minor Forest Produce, value.	Total value.
					Number.	Value.			
		Rs.		Rs.		Rs.	Rs.	Rs.	Rs.
Free-grantees ..	11	3,834	1	17	2,060	22	1,297	* 1,159	6,329
Right-holders ..	19	6,988	..	..	..	..	..	..	6,988
Total ..	30	10,822	1	17	2,060	22	1,297	1,159	13,317

* Represents (excepting for Rs. 8) value of metal, etc., removed by the Public Works and Local Fund Departments.

(*c*) OUTTURN AND SOURCES OF FOREST PRODUCE.

Agency of exploitation.	Timber, in thousands of cubic feet.		Fuel, in thousands of cubic feet.		Bamboos, value.		Minor forest produce and grazing value.	
	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.	1923-24.	1924-25.
					Rs.	Rs.	Rs.	Rs.
1. By Government agency.	544	675	732	343	34,073	12,929	1,536	2,046
2. By purchasers ..	375	322	3,451	3,040	17,780	13,942	64,941	69,482
3. By free-grantees.	1	11	..	1	2,785	22	1,395	2,456
4. By right-holders.	27	19	..	..	..	..	..	..
Total ..	947	1,027	4,183	3,384	54,638	26,893	67,872	73,984

Timber.

56. The increase in the removals by Government agency was due to the increase in the areas clear-felled in the *Nilambur* and *Wynaad* divisions.

The decrease in the removals by purchasers was principally due to the fact that the outturn from clear-fellings in *Nilambur* of previous year's contracts appeared in the last year's account.

The increase in the removals by free-grantees was mostly in the *Palghat* division representing materials sanctioned for rebuilding houses destroyed in the floods and the timber was mostly palmyra trees.

Fuel.

57. The decrease was in all the divisions (except *Nilambur* and *Wynaad* where there was no fuel-working). The fall was due to small yield from top-ends of timber coupes in the *North Mangalore* division, and to the late working of fuel coupes sold to contractors in *South Mangalore, the Nilgiris* and the *Palghat* divisions.

Bamboos.

58. The decrease was due to there being no operations in *North* and *South Mangalore* as in the previous year necessitated by flood relief work and to the non-continuance of departmental fellings of bamboos from Kannoth undertaken as a trial in the previous year.

Grazing.

59. The number of cattle admitted to graze on payment was 121,676 against 142,964 in the previous year. The fall was in the number of slaughter cattle taken to *the Nilgiris* and in the number of cattle brought to the Kulganda cattle fair. The decrease in the former is attributed to floods and that in the latter to a misunderstanding of the date of the fair.

Minor Forest Produce.

60. The increase in minor forest produce is due to the inclusion of the revenue from the sale of Catechu trees in *North Mangalore* under this head, it having been previously included under timber.

CHAPTER V.—FINANCIAL RESULTS.

61. The revenue and expenditure for the year are compared below with those of 1923-24 :—

	1923-24.		1924-25.	
	VI Circle.	Forest Research Office.	VI Circle.	Forest Research Office.
	Rs.	Rs.	Rs.	Rs.
Revenue	8,48,160	30	9,66,037	4
Refunds	2,590	..	4,352	..
Net ..	8,45,570	30	9,61,685	4
Expenditure.				
B.—Conservancy and works (including capital outlay).	4,33,025	1,956	5,40,104	2,689
C.—Establishment	4,30,179	23,733	4,67,413	22,329
Total ..	8,63,204	25,689	10,07,517	25,018

62. Compared with 1923-24, the revenue shows an increase of Rs. 1,16,000 and expenditure Rs. 1,44,000—Rs. 1,07,000 under 'Works' and Rs. 37,000 under 'Establishment'.

63. The increase in revenue is made up of Rs. 96,000 under I (*a*) timber, spread over all the divisions except *Palghat* due to improved sales; I (*b*) firewood and charcoal, Rs. 24,000 principally in *the Nilgiris* where wood felled in the previous year was sold during the year; I (*d*) sandalwood, Rs. 44,000 in *the Nilgiris* and *North Mangalore* divisions due to realization of previous year's sale amount in the current year in the case of the former, and in *North Mangalore* due to extraction in Coondapur range, which had to be postponed in the previous year owing to floods; and Rs. 12,000 under II (*e*) minor produce principally in North Mangalore due to the credit of the sale amount of Catechu trees to this head instead of to II (*a*). Against this increase there was a fall of Rs. 22,000 under II (*a*) due to there being no realization from the sale of standing timber from areas to be clear-felled in the *Nilambur* division as was the case previously; Rs. 12,000 under II (*b*) due to poor prices realized for fuel coupes in *North Mangalore* and *Palghat* and of Rs. 25,000 under V due to sale of fewer elephants. The revenue would have been greater had it not been for the reservation of stocks in *Nilambur* for sleeper-supply; also about Rs. 41,000 was realized from Messrs. Howard Bros., England, after the close of the year.

64. The increase in expenditure was mainly due to increased expenditure on works of a capital nature which amounted to Rs. 1,18,000 during the year against Rs. 45,000 in the previous year. There was a large expenditure on buildings—construction of quarters for subordinates, etc., in the *Wynaad* and *Nilambur* divisions; there was also a large expenditure in floating timber in *Nilambur* and in the despatch of timber to England in the *Wynaad* division. The expenditure in *Nilambur* also includes the installation of a portable saw mill.

65. The increase under establishment is due to the inclusion of the charges of the Logging branch in connection with operations in *North Mangalore* and *Nilambur* divisions and to the opening of a vernacular training school in the Circle.

66. The outstandings of revenue at the close of the year was Rs. 85,217 against Rs. 1,22,210 at the end of last year.

67. Of the revenue realized in the year 83 per cent was from major produce, 7 per cent from minor produce, 4 per cent from grazing and 6 per cent from other sources.

68. Of the expenditure 50 per cent was on exploitation, 30 per cent on upkeep and improvement of forests, and 20 per cent on miscellaneous items.

CHAPTER VI.—RESEARCH AND EXPERIMENTS.

69. Sylvicultural research work was in the hands of a Special Officer attached to this Circle, who was after the close of the year, transferred to the control of the Conservator of Forests, Working Plans Circle. The observation areas in this Circle are located in *Palghat*, *Nilambur*, *Wynaad* and the *South Mangalore* divisions. A special report is separately prepared and submitted by him to the Chief Conservator of Forests and to the Forest Research Institute, Dehra Dun.

70. Minor experiments were, as usual, carried out by the District Forest Officers. Briefly these are—

North Mangalore division.—Two acre sample plots were opened in the Baindur reserve for experimenting on Catechu (*Acacia sundra*). Both the plots were fenced to keep out cattle, and in one of them seeds were sown in lines 12 feet apart early in July 1924, while in the other no sowings were done. The percentage of success in the case of sowing was about 60, while there were only 28 seedlings in the plot not sown. The inspection of the plots in March 1925 showed that the seedlings in both the plots had attained an average height of 4″ but did not look healthy.

The teak stumplings planted in Jattukattumale reserve during the previous year are growing well. Some of the plants are reported to be 18 feet in height.

Wynaad division.—An area of about $10\frac{1}{2}$ acres of old ponam cultivation in the Kannoth reserve containing a growth of inferior species was given for cultivation. With the field crop on definite and separate areas of 1 acre each *Bombax*, *Eriodendron*, *Terminalia paniculata*, *Jack*, *Aiyini*, Rosewood and Castor were sown, and in one patch *Vateria* was planted. One acre was set aside to be sown with *Hopea* in 1925 under the coppice growth. The espacement adopted was $9' \times 9'$. When the crop was harvested in November the following results were observed:—

Bombax 79 per cent.
Eriodendron 74 per cent,
Terminalia paniculata 25 per cent.
Jack 30 per cent,
Aiyini 54 per cent,
Rosewood 67 per cent.
Vateria 56 per cent,

The object of this experiment is to ascertain which of the above species can be grown with advantage in all the old ponam areas and the evergreen forests of the Kannoth range. It is too early to express an opinion on the experiment and it is necessary to try some more species.

Nilambur division.—In regard to the botanical specimens of the two varieties of rosewood trees flowering during February to April and August and September sent to Dehra Dun last year, with a view to find out the botanical difference between them, the Forest Botanist's reply was that it was very unlikely that any difference would appear in the timber since there was no difference in the botanical specimens. It was stated that the timber specimens had been sent to New York and that it was not known when the reply would be received. As similar specimens sent from Coorg some years ago were identified to be *Dalbergia latifolia* (as flowering in August-September) and as *Dalbergia sissoides* (flowering in February-March), the question is still under investigation.

Six broad-gauge sleepers of *Stereospermum chelonoides* were sent to the Principal, College of Engineering, Guindy, for testing. The results are awaited.

The following experiments were arranged to be carried out in compartment 62 of Edacode 1924 plantation in an area of 3 acres each :—

(i) Sowing and hand-weeding,
(ii) Sowing and plough-weeding,
(iii) Planting and hand-weeding,
(iv) Planting and plough-weeding, and
(v) Pitting and sowing.

The espacement was $6' \times 6'$ in all classes. Correct results could not be obtained on account of the heavy floods which partly destroyed the areas.

Seeds of *Helicteres Isora* were sown in compartment 84 to see whether this shrub would keep down weeds. Though the seeds germinated fairly well, the weeds got better of the *Helicteres*.

Sesbania aculeata seed was sown in 3 acres in 1924 plantation in the Amarampalam range to see whether it would keep down weeds in young plantations. The germination was successful, but when the plants reached a height of 1 to $1\frac{1}{2}$ feet they were browsed by sambur, deer and bison. In respect of its reputation for keeping down weeds, it was observed that it does not do so, but in fact it was itself a weed of luxuriant growth which hampered teak.

The Nilgiri division.—Experimental planting of a number of species chiefly *Alder*, Broom, *Acacia*, was made on an area of 16 acres along the stream banks near Lakkidi on the Kundahs, with the object of finding out the best way of re-afforesting the

grassy areas where sholas had been killed out by fire. Frost did a great deal of damage killing nearly every *Alder* plant. The results were unsatisfactory.

The survivals of *Pinus khasya* planted in 1922 show good growth, but there are not many of these.

Palghat division.—In October 1924, the Madras Forest College students felled about $\frac{3}{8}$ acre in the Sadivayal forests of Bolampatti range in order to calculate the yield. The yield was 74 pieces of small timber of 113 c. ft. and 456 c. ft. of fuel.

CHAPTER VII.—ADMINISTRATION.

71. Mr. R. D. Richmond, Conservator of Forests, held charge of the Circle throughout the year. The additional ranges sanctioned at the close of the last year in the *South Mangalore* division (Beltangadi range) and in the *Wynaad* division (Sultan's Battery range) were actually constituted during the year on 18th February 1925 and 16th August 1924 as Rangers became available.

Tours.

72. His Excellency the Governor visited the Nilambur teak plantations in October 1924.

Professor E. P. Stebbing visited the Dhoni forests in March 1925.

The Chief Conservator of Forests inspected the regeneration areas in the Jalsur East and Parappa reserves in *South Mangalore*, Boothakal in the *Wynaad* and Sappal in *Palghat*. He also inspected the forests in the Nilambur valley.

The Conservator toured in all the divisions of the Circle spending 183 days in camp and wrote inspection notes in respect of the Wynaad and Nilambur forests.

The touring of the District Forest Officers except *North Mangalore* and *Nilambur* fell short of the prescribed minimum. The short touring in *North Mangalore* is attributed to the District Forest Officer's (Mr. G. S. Lasrado) illness during February and March 1925, and that in *Nilambur* to the District Forest Officer's Hill recess (from 6th April 1924 to 2nd May 1924) to the District Forest Officer being held up for twenty days on account of floods and the several changes in the personnel of the District Forest Officer.

Inspection of District Forest and Range Offices.

73. The Conservator inspected all District Forest offices in the Circle, and the District Forest Officers all the Range offices in their divisions.

Besides Forest depots, the timber sale depots at Mangalore, Kasaragod, Beypore, Mysore and Nanjangode and the sandalwood depot at Masinigudi were also inspected by the District Forest Officers.

District Forest Officer's Accounts Inspection.

74. The audit staff attached to the Accountant-General's office inspected the accounts of all the divisions for 1923-24, and the general result was satisfactory.

Vernacular Training School.

75. After an interval of three years since the formation of this Circle, sanction was obtained to conduct a session of the Vernacular Training School. The session was held in the *Nilambur* division from 5th May 1924 to 6th November 1924, with Ranger K. R. Krishnan Nayar as Senior Instructor and Supernumerary Ranger K. Raghavan as Junior Instructor. Thirty students (8 Foresters and 22 Guards) were trained, and all of them were given certificates, 11 in the first class and 19 in the second class. A noteworthy feature was the assistance given by the students in building nine sheds at Karimpuza and Chanthapura for families rendered destitute by the floods. The health, conduct and discipline of the students were good.

Health of Establishment and Sanitation.

76. The health of the establishment was on the whole fairly good except in the Ghat forests of *North Mangalore*, in Nalkur and Porkala sections of *South Mangalore*, in the *Wynaad*, in the Amarampalam range of the *Nilambur* division, in the low lying areas of *the Nilgiris* and in Chenat Nair, Walayar and Attappadi and Silent Valley reserves of *Palghat* division.

One Forester, 4 Forest Guards, 1 elephant Jamadar and 1 tappal watcher died of fever; one Forest Guard died of pthysis; one mahout died of smallpox.

CHAPTER VIII.—GENERAL.

(i) *Formation and Management of Panchayats.*

(To include the Forest Village System.)

77. The panchayat system was in operation in the *North* and *South Mangalore* and *Palghat* divisions. In *North* and *South Mangalore*, the panchayats are under the forest village system.

In *North Mangalore*, there were in all 7 panchayats in charge of 13 reserves, out of which all but one managed their charge

satisfactorily. In the case of the excepted panchayat in charge of two reserves (Todar and Hosabettu reserves), it has been ordered that separate panchayats should be formed for each of the reserves and that the bad management should be penalized by the withdrawal of the concession of the refund of any portion of the grazing fees.

In his inspection of the Matkalgudde and Mavinakodlu reserves under panchayat management, the Conservator (Mr. Richmond) found that a great deal of the cutting had been done ostensibly in favour of the *Hopea* plants resulting from the broadcast sowings of some dozen years ago and of some natural regeneration of the same kind. It was found that much good has been done to the growth in this way and that there was also demand for firewood from the ryots. It was ordered that the principle of located fellings should be applied to these areas for the people to carry out regular fellings to obtain their requirements for domestic purposes and that the people should in turn sow broadcast an area equal to that cut over. This arrangement was come to with the consent of the president of the panchayat. A working scheme with three felling series in these two reserves has been approved and suitable conditions are to be inserted in the agreement for 1925-26. The result of this scheme will be commented on in the next report.

In *South Mangalore*, the panchayats for the Bellere reserve and a portion of the Porkala reserve continued. The work of the Bellere panchayat was satisfactory, while that of Porkala was not quite satisfactory. The Porkala panchayat has resolved not to continue after 1st July 1925 arguing that all their requirements, viz., manure leaves, dead fuel, etc., can be secured under the concessions granted by the Chief Conservator of Forests, without undertaking the responsibility of protecting the reserve from fire and theft. It is apparent that the refund of half the grazing fee for good protection is not by itself a sufficient inducement to form a panchayat.

In the *Palghat* division, the panchayats of Ettimadai, Madukkarai and Sundakamuthur under the control of the Revenue Divisional Officer are not reported to have worked properly. The forest panchayats of the reserves in the Erode taluk continued to be under the control of the Special Forest Panchayat Officer.

(ii) *Measures for improving Local Supplies and Facilities.*

78. In *North* and *South Mangalore* divisions, the Chief Conservator of Forests was pleased to grant the following concessions to the ryots for a period of one year from 1st August 1924 :—

Clearing of undergrowth in all reserves (except those near the coast) to a distance of half a mile from the limits of private

holdings, and in the case of reserves near the coast to a distance of 200 yards from the limits of private holdings, and clearing of undergrowth in all areas sown with *Hopea* and the free removal of green manure leaves of unclassified species and dry leaves of all species and dead fuel.

These concessions are reported to have been availed of freely, and a report on the result of the working of the concessions will be submitted separately.

In *South Mangalore*, timber in the shape of logs and sized scantlings was, as usual, sold at fixed rates at Kasaragod and Mangalore depots and also in the coupes. In *the Nilgiris*, the demand for small timber and bamboos was met by the issue of permits. The removal of branchwood from coupes worked in Ootacamund was permitted at one anna per head-load. In *Palghat*, the demand was met from the coupes under working. In the *Wynaad* and *Nilambur*, no measures were called for owing to the existence of vast extent of private forests and unreserved lands.

No steps for improving the water-supply in grazing grounds are necessary owing to the well-watered nature of the country.

(iii) *Timber and Sandalwood Transit Rules.*

79. The rules are reported to have worked satisfactorily except in the Bolampatti range of the *Palghat* division, where large quantities of fuel, etc., are removed under cover of patta permits. The Collector of Coimbatore has ordered that all the patta permits should be countersigned by the village munsif.

The revised timber transit rules for the *Palghat* division consequent on the transfer of the Silent Valley reserve from *Nilambur* to *Palghat*, and the transfer of the Mettupalayam range from *Palghat* to *North Coimbatore* will be submitted shortly.

(iv) *Jungle Tribes.*

80. *Wynaad division.*—The policy of attracting Kurumbers and others to live in the forests and supply labour, by granting them small areas for temporary cultivation, was continued. The people, who were in addition advanced money by the Government free of interest for the purchase of cattle, are reported to have worked satisfactorily and have returned a part of the advance.

The school for Kurumber children sanctioned by Government was started at Muthanga in June 1924. The strength on the roll was 43 boy pupils and 2 girl pupils. There is a full-time teacher now in charge of the school, as the original arrangement under

which the tannahdar was looking after the school was rendered impossible by the transfer of the tannah to Mavinhalla (Iron bridge). The present strength of the school is 38, the reduction being due to the fact that some of the people had left the place.

The progress of the school during the year is stated to be satisfactory. Thirteen pupils were in the first standard, and 25 in the infant standard. The first-standard pupils can read and write and do simple arithmetic. The average attendance is 32 per day.

It is reported that the people have begun to realize the benefit derived by the school and that they take interest in repairing the school building themselves.

The Nilgiri division.—In Sigur range the Kasubas have been encouraged to settle at Anaikatti by giving them plots of land free for cultivation.

Palghat.—There are eighteen mulcer settlements in the Bolampatti and Mannarghat ranges. The lands assigned to these are free of assessment and the mulcers are expected to supply labour to the department.

(v) *Mining and Quarrying*—Nil.

(vi) *Live-stock.*

81. (*a*) *Elephants.*—The number of elephants at the beginning of the year was 83; 21 were captured and 2 were born, making a total of 106. Of these, 3 were transferred to the *South Coimbatore* division, 11 died and 12 were sold, leaving 80 at the end of the year, valued at Rs. 2,53,200. Of the 11 that died 3 were working elephants.

A sum of Rs. 10,350 was realized by the sale of elephants which were mostly calves and new captures.

82. (*b*) *Other animals.*—There were 22 bullocks and 45 buffaloes at the beginning of the year. Of these 3 bullocks and 6 buffaloes were sold and 1 bullock and 4 buffaloes were destroyed and 2 buffaloes died, leaving 18 bullocks and 33 buffaloes at the end of the year.

(vii) *Veterinary Establishment.*

83. The Veterinary Assistant at Gudalur was in charge of the animals of *the Nilgiris* and the *Wynaad* and the Veterinary Assistant at Nilambur was in charge of the animals in that division. The work of both these subordinates was supervised by the Inspector of Live-stock who also inspected the elephants in Kanara.

(viii) *Civil Suits.*

84. *North Mangalore.*—The civil suit filed last year to recover the loss of Rs. 1,701 from a Nux-vomica contractor was compromised after the close of the year on the contractor paying to Government Rs. 1,000.

South Mangalore.—The appeal in the High Court referred to in the last report is still pending.

In the suit filed by the timber merchant which was decided against the Government, an appeal has been preferred to the District Judge, and the appeal has not yet been taken up.

Wynaad.—The appeal filed by Contractor Venkatarama Chetti in the Chief Court, Mysore, against the decision of the District Court, Mysore, referred to in the last report, has not yet been heard.

Nilambur.—The civil suit in respect of the boundary of Kariem and Muriem blocks in the District Court, South Malabar, having ended in favour of the Tirumalpad, and the amount decreed in his favour having been paid by the department, a notice of suit has been served on the Uralan for the recovery of the amount paid to the Tirumalpad. The Uralan has preferred an appeal to the High Court against the decree of the District Court. The appeal is pending.

T. A. WHITEHEAD,
Acting Conservator of Forests,
Sixth Circle.

OOTACAMUND,
12*th August* 1925.

ADMINISTRATION REPORT OF THE MADRAS FOREST COLLEGE, COIMBATORE, FOR THE PERIOD FROM 1ST APRIL 1924 TO 31ST MARCH 1925.

CHAPTER I.

CONSTITUTION.

Staff.

Principal.—Mr. W. G. Dyson held charge from 1st April to 18th July 1924, and Mr. C. R. F. Williams succeeded him for the remainder of the year.

Instructors.—The posts of Senior and Junior Instructors were held as follows:—

Name of officer.	Period.
Senior Instructors.	
Mr. C. R. F. Williams	1st April to 18th July 1924.
(Vacant from 19th to 22nd July 24).	
Mr. J. A. Wilson...	23rd July 1924 to 31st March 1925.
Mr. J. E. M. Mitchell	1st April to 25th July 1924.
Mr. R. H. Mitchell	26th July 1924 to 31st March 1925.
Junior Instructors.	
Mr. A. R. Brand	Throughout the year.
Mr. C. M. Kushalappa	Do.

Sub-Assistant Surgeons.—Messrs. P. Krishna Kurup, Krishnan Nair, H. M. Hande and Raju were attached to the College during the camping periods as Medical Officers and they delivered occasional lectures in First Aid and Camp Hygiene. First Aid lectures were delivered in headquarters to the students of the Senior Division by the Medical Officer in charge of the Lawley Road Dispensary.

All students were instructed in physical training, gymnastics and drill by the College Havildars under the supervision of Mr. R. H. Mitchell.

Board of Visitors.—Mr. H. Tireman, C.I.E., I.F.S., Chief Conservator of Forests, was ex-officio President of the Board of Visitors during the year under report.

The following officers were members of the Board during the year :—

Name of officer.	Period.
Mr. H. A. Latham	1st April to 23rd November 1924.
Mr. H. F. A. Wood	1st April to 12th October 1924.
Mr. R. D. Richmond	Throughout the year.
Mr. D. T. Barry	Do.
Mr. T. A. Whitehead	Do.
Mr. T. Clear	1st April to 8th June 1924. 24th June to 27th September 1924. 24th November 1924 to 31st March 1925.
Mr. C. C. Wilson	28th September 1924 to 31st March 1925.
Mr. A. Wimbush	13th Octobor 1924 to 31st March 1925

CHAPTER II.

INSTRUCTION.

Special lectures.—Two additional and particularly interesting courses of lectures were given during the year. Mr. J. K. Pearce, Logging Engineer with the Government of Madras, very kindly delivered a series of lectures in Logging Engineering which students and staff very much appreciated. Mr. H. P. Ward, Utilization Officer, delivered a series of lectures on 'Utilization'.

1922-24 *Division.*—The Final Examination of the 1922-24 Division was held in June 1924. Twenty-six students appeared for the examination of which 6 were awarded Honours Certificates, 15 Higher Standard Certificates and 5 Lower Standard Certificates. Though the results show a falling off from the standard reached in the previous year, actually the students of this Division were up to the average. Student K. P. Rajalingam, a Ceylon student, was of outstanding ability both in the field and class room.

The following list shows the certificates awarded in order of merit :—

Rank.	Name of student.	Name of Circle, State or province to which attached.
	Madras Ranger Honours.	
1.	K. Puspa Rajalingam	Ceylon.
2.	B. H. Ananthathirtha Rao	Third Circle.
3.	S. Rangasawmi Ayyangar	Fourth ,,
4.	U. Vridhachallam Pillai	Fifth ,,
5.	Thermalai Krishnamachari	Private student.
6.	K. Dooma Shetty	Sixth Circle.

Rank.	Name of student.	Name of Circle, State or province to which attached.
	Madras Ranger Higher Standard.	
7.	A. E Perera	Ceylon.
8.	H. B. Devulweewa	Do.
9.	Gopal Das Mehta	Central Provinces.
10.	Babu Sarat Chandra Das	Orissa Feudatory States.
11.	Devraj Shukal	Central Provinces.
12.	Bachu Ramadas	Vizianagram State.
13.	Thomas Raja Bushanam	Court of Wards.
14.	Bhaiya Lal Gupta	Central Provinces
15.	Muhammad Mahfuzul Rahim	Do.
16.	Kushiram	Do.
17.	Shiv Ram	Do.
18.	Babu Harish Chandra Sen	Bihar and Orissa.
19.	Lakshmi Narayan Tiwari	Central Provinces.
20.	Karam Chand	Do.
21.	More Ganesh Sirpurkar	Do.
	Madras Ranger Lower Standard.	
22.	Mohemmed Shamsuddin Khan	Hyderabad.
23.	K. Ganapathi Pillai	Ceylon.
24.	A. Jayasundara	Do.
25.	Shyam Sundara Nath Kaul	Central Provinces.
26.	Mohemmad Abdul Aziz Khan	Hyderabad.

The Government and other Prizes were awarded as follows:—

(1) The Gold Medal for the best Second year student—K. Puspa Rajalingam.

(2) The Campbell-Walker Prize for the best all-round Ranger—K. Puspa Rajalingam.

(3) The Braizer Prize for the best practical out-door Ranger—K. Puspa Rajalingam.

(4) The Lodge Prize for the best Second year student in Forest Engineering—K. Puspa Rajalingam.

(5) The Madras Conservators' Prize for the best Second year student in Forestry—K. Puspa Rajalingam.

(6) The Indian Forester Prize for the best essay by present students—K. Puspa Rajalingam.

(7) The Chief Conservator's Prize for the best student of the Junior Division—S. Narayanasawmi Ayyar.

(8) The Pentland Shield for the best athlete in the College—Khan Muhammad, a Junior Student.

(9) The Fischer Challenge Cup for the best tennis player in the College—R. D. Phillips, a Junior student.

(10) The Muppil Nair Cup for the Marathon Race—Muhammad Kassim, a Senior student.

Messrs. M. F. Bridge, J. D. Connolly, Captain H. A. Irwin, J. K. Pearce, G. C. Robinson, J. W. K. Wernham, W. C. Hart

and Syed Abdul Qadir Sahib conducted the Final Examinations in June 1924. The papers set this year were of a more practical nature than usual. The result of this as might have been expected from previous years' reports was that the percentage of marks obtained in the Final Examination was slightly lower than in the previous year.

1923-25 *Division.*—The 1923-25 Division, the present Senior year, with one or two exceptions shewed very fair promise.

Of the 27 students of this Division who began the course, one, a private student, left the College within a few days of his arrival as he could not meet the expenses of the College; while a Central Provinces student was expelled from the College for tampering with his Second Periodical Examination answer paper.

The Final Examination in Physical Science was held in June 1924 with satisfactory results.

First Aid Examination.—Twenty-five students were examined in First Aid by a Medical Officer of the Government Hospital, Coimbatore, and all but three students gained the Saint John's Ambulance Proficiency Certificate.

1924-26 *Division.*—The 1924-26 Division, the present Junior year, is on the whole doing fairly well. Thirty-one students began the course, one of whom, a Muhammadan student from Hyderabad State, died quite suddenly from the effects of diabetes. He was found unconscious in his room one morning, and although immediately taken down to hospital by car, died the same day without recovering consciousness. A second student from the Central Provinces was sent down during the year as having insufficient education to follow the course.

2. *Periodical Examinations.*—The Periodical Examinations held during the year show that the two divisions are making satisfactory progress.

3. *Practical Training in Headquarters.*—Saturday mornings were as usual spent in practical work on the estate. The Demonstration Forest afforded an opportunity for applying Sylvicultural and Utilization principles, and a certain amount of Practical Engineering was also carried out, more particularly survey, in the estate.

The following work was done in the Demonstration Forest:—

(*a*) Seedlings of the following species were planted in felled coupes:—

Cassia Siamia	Peltoforum ferruginum
Tamarind	Albizzia lebbek.
Pithecolobium Saman	

About 40 per cent survived the hot weather.

(*b*) *Planting out of young sandal plants in groups.*—The extremely healthy appearance of the sandal already planted out has made it desirable to increase planting under this head. An experiment in sandal germination conducted at the College showed practically no germination in black cotton soil.

(*c*) An attempt was made to introduce Eucalyptus teretecornis, but the seed was not good and the results were nil. A further supply of seed was received free from Australia and has been germinated.

(*d*) A number of species were germinated in seed beds in the nursery largely for instructional purposes. Among these were the Nilgiri acacias and Eucalpytus globulus, but the seedlings died soon after germination.

(*e*) Dendrocalamus strictus and Bambusa seed was obtained from various districts and a number of areas have been successfully carpeted with seedlings.

(*f*) Coupe 5 was felled and the fuel obtained was sold.

4. *Prize giving.*—On 28th June 1924 the usual Annual Prize giving was held at the College. The Hon'ble Sir Arthur Knapp, Member of Council, presided, and Lady Knapp very kindly presented the prizes and certificates.

The usual Garden Party in the College grounds followed.

CHAPTER III.

ADMINISTRATION, TOURING, HEALTH AND CONDUCT.

Administration.

1. *Board of Visitors' meeting.*—The Board of Visitors held their Annual Meeting at the College on the 26th June 1924.

Among the various points of College administration discussed were—

(1) *Dhoni Camp.*—The Principal reported that after a visit to Coorg he had come to the conclusion that any advantage which Coorg may possess as a camp for the students of the Madras Forest College is more than counterbalanced by the expense and difficulty of getting there, and recommended that the Sappal camp should be retained. This was approved by the Board.

(2) *Nilambur-Nedungayam Camp.*—The Principal's proposal to camp at Nedungayam during the whole period of the visit to the Nilambur division was accepted with the proviso that a minimum of six days should be spent in the older plantations near Nilambur.

(3) *Komattiyeri Camp.*—It was proposed that the Komattiyeri camp, being very distant and therefore very expensive, should

be abandoned, and that a combined camp at Sadivayal (Bolampatti) should be substituted. The proposal was accepted.

(4) *Campbell-Walker and Brazier Prizes.*—The Board resolved that the Campbell-Walker Prize should be granted (as was the case originally) to the best student in Forestry (i.e., Sylviculture, Working Plans, and Utilization) in the Final Examinations. In consequence it was agreed that the Conservators' Prize should be given in future to the best student in Survey and Drawing.

(5) *Concession to Honours and Higher Standard men.*—The Board resolved that it is advisable to continue the existing practice under which Honours and Higher Standard men obtain advantages in promotion. It was further resolved that Honours Certificates should be granted only in cases of very exceptional merit and on the advice of the Board of Visitors to those who obtain pass marks in the major subjects and not less than 80 per cent of the total number of marks. It was decided that this amended rule should apply to those who enter the College in and after 1925.

2. *Cost of education.*—As shown by the figures given in Statement No. I, appended to this report, the actual net cost of the College to Government this year has been Rs. 11,839 only, as against Rs. 63,562 of the pervious year.

There were eight Madras students under training at the College, which makes the cost to Government per student Rs. 1,480, as against Rs. 7,945 the previous year. Students from outside Provinces pay Rs. 1,500 per annum tuition fees, and stipends and travelling allowance make up a further Rs. 1,000 per annum. It will be seen that if these figures were applied to the Madras students, the College would show a profit of Rs. 12,000 for the year under report, which is a very satisfactory condition indeed.

This is accounted for mainly by—

(1) Increase of the number of students admitted.

(2) Decrease in expenditure due to—

(*a*) Posting of Junior Officers to the College and consequent great reduction in pay and travelling allowance; and

(*b*) Curtailment of expenditure under various heads.

3. *Touring.*—The camping during the year under review was in accordance with the sanctioned programme—vide details below.

1922-24 *Division.*

April and May 1924, *Arambyshola.*—This was the last camp of the 1922-24 Division and as far as possible examples were discussed bearing on the whole two years' course. A road through Governor's Shola was aligned and an estimate for the work of construction prepared.

Statistics were collected and a simple working scheme drawn up.

Practical Examinations in Survey, Botany and Sylviculture were held.

1923-25 *Division.*

April and May 1924, *Bandyshola, Coonoor.*—The Engineering work consisted mostly of Survey—coupes, reserve boundary and a forest road. An estimate for road repairs was prepared for Gass Road.

In Sylviculture the growth and yield of Eucalyptus was studied in detail, and also the manufacture of charcoal, and preparation of Eucalyptus oil was observed.

September and October 1924, *Sadivayal.*—The Division spent a considerable time stock-mapping the Vellapathi block, estimating the yield by sample plots and preparing a detailed reconnaissance report.

Under the Engineering Instructor they prepared a road estimate for the Bolampatti-Muthikulam road and actually carried out a little of the work. They also did a certain amount of survey through uncleared jungle.

November and December 1924, *Nilambur and Nedungayam.*—The construction of the new buildings at Karulai and Nilambur were made the most of, and the students were able to study building construction practically.

In Sylviculture, teak was studied in detail, and by the courtesy of the officers engaged in thinning a good deal of practice in this most important branch was obtained.

The principles of mensuration and enumeration were studied practically.

The students visited the Beypore Depot and Saw Mill.

January and February 1925, *Dhoni.*—This camp as usual was very interesting and instructive.

The method of mapping and stock-mapping with the Trailer Tape and Abney level was practised.

The Forest Exploitation Officer very kindly gave a good deal of time to the students explaining drag paths and slides, road construction and saw-sharpening. They also saw the mechanical haulage apparatus in action.

The Forest Exploitation Officer took the students round the various experimental plots and gave brief notes on their objects.

Inspection of natural and artificial regeneration took up a large part of the time.

The students inspected the new Saw Mill at Olavakkot.

1924-26 *Division.*

September and October 1924, *Sadivayal.*—The new juniors camped as usual at Sadivayal in September and October, where they were taught and shown the elementary rules of Forestry. They enumerated and stock-mapped an area, and did a certain amount of survey.

November and December 1924, *Topslip.*—During these months the Junior division camped in Tunacadavu range.

All the operations necessary for the regeneration of teak by dibbling were studied in detail. A 90-acre plot in Kariansholа was enumerated, and the possibilites of methods of working and regeneration discussed.

The construction of the new Ghat road and the construction and working of the tram-line were studied. Part of the work of reconstruction of a suspension bridge between 1920 and 1922 regeneration areas was undertaken.

Shola species were identified and discussed.

January and February 1925, *Kargudi.*—At Kargudi some little time was spent in early burning, in which the students took part. Elephant capturing operations were also taken part in, there being a large number of falls during this camp.

Sandal was seen at Masinugoodi, and the teak nursery and planting operations were inspected and discussed.

The students laid out a line of levels for water-supply and aligned a road.

4. *Tour journals.*—A record of all work done in camp is maintained in the form of Tour Journals, and District Forest Officers are informed of any work carried out by the students which it is considered might be of use or interest to the district.

5. *District officials.*—The very warm thanks of the College are due to the officials of the districts visited, who so kindly not only did all in their power to make our camps comfortable, but went out of their way to show us all that is of interest in the locality. Although busy, they always had time to spare for instruction of the students, and the students learnt a great deal from them. While this was the case everywhere, Dhoni must be specially mentioned for the amount of time that was devoted to us by the various officers.

6. *Inspections.*—The students were inspected in camp in the Nilgiris by the Chief Conservator of Forests.

7. *Swimming.*—During the Nilambur and Kargudi camps the students of both the divisions respectively were taught to swim.

Of the 1923-25 Division all but two had learnt to swim by the end of the Nedungayam camp.

8. *Health.*—The health of the Junior division at the beginning of the year was not good. The death of a Muhammadan student deputed by the Hyderabad State was followed by two other cases of serious illness, which had to be treated in hospital for some time. Fortunately both recovered, although one student was compelled to take three months' leave to recuperate. With these exceptions, the general health of both divisions both in headquarters and in camp has been good during the year.

There is no doubt that the students' general health improves considerably during their stay at the College. Regular work, regular exercise and constant medical supervision has a marked effect upon them.

9. *Conduct and discipline.*—The discipline at the College was, during the year, satisfactory. One Central Provinces student, S. R. Bali, was dismissed from the College in June 1924 for tampering with his examination answer papers after they had been sent in. No other cases of serious breach of discipline occurred, and the conduct of the students on the whole was good.

CHAPTER IV.

The Gass Forest Museum; College and Students' Libraries.

1. *Museum.*—Mr. G. Viswanatha Ayyar, B.A., the Curator, was in charge of the Museum throughout the year.

Public interest is maintained in the Museum and valuable contributions are continually received. The Museum was visited by Professor E. P. Stebbing, of the University of Edinburgh, who offered valuable suggestions for its improvement.

During the year, about a hundred selected botanical specimens were exhibited in glazed frames, showing the characteristic morphological features of the more important forest trees, with short notes, and floral diagrams.

Seedlings of four species of sylvicultural interest were exhibited showing different stages of germination. Descriptive labels giving useful information were prepared for some of the exhibits of minor forest produce.

That the Museum continues to afford instruction and interest to visitors is shown by their increase in number from 22,934 to 24,495.

A few lectures were given by the Curator to the Senior students of the College on timber identification and Systematic Botany.

2. *General Library.*—Including periodicals 252 books were added to the General Library.

CHAPTER V.

SUPERVISION, WATER-SUPPLY, ROADS, BUILDINGS, ETC.

1. *Supervision.*—Mr. A. Marudachalam Pillai continued as Overseer throughout the year.

2. *Office establishment.*—The office establishment worked well during the year and the Auditor's inspection shows the accounts to be in a very satisfactory state.

3. *Water-supply.*—The new pump continued to give trouble during the year at intervals, and a sum of Rs. 494-9-6 was spent on repairs.

4. *Roads.*—The relay of roads in front of and around the Museum was not taken up during the year for want of funds.

All the existing roads have been kept in repair.

5. *Buildings.*—Necessary repairs to the hostels and other buildings under the control of the Principal were executed during the year.

Rupees 399 was spent for construction of Instructors' sheds at Topslip.

6. *Athletic ground.*—During the year Rs. 251 was spent upon repairs to tennis courts, hockey and football grounds.

CHAPTER VI.

GENERAL.

1. *Stock-taking.*—The stock of the College was checked in detail in July 1924 by the staff of the College and the articles missing or unserviceable were written off under proper sanction.

2. *Athletics.*—The Athletic Sports were held on 6th September 1924; the College record for the 100 yards was reduced to 11 seconds by Khan Muhammad.

The mile and half-mile also provided exciting finishes.

The Richmond Cup was won by Lagu with 18½ points, the runner-up, Khan Muhammad, scoring 16 points. Both students did extremely well.

The Inter-division football Match in June 1924 resulted in a draw.

The Cowley-Brown Challenge Cup for the Inter-divisional Hockey Match was won by the 1922-24 Division.

The Marathon Race was held on 28th September 1924 at Sadivayal in Bolampatti range. It was won by Muhammad Kasim of the Senior division in 37 minutes and he thereby carried off the Cup presented by M.R.Ry. K. Rama Raja Mannarghat Moopil Nayar Avargal.

The Inter-divisional Challenge Cup presented by the late Risaldar Major Amir Muhammad Khan Sahib for this race was won very easily by the 1923-25 division who scored 62 points against 16. The Junior students on the whole put up a very poor show only securing three low places in the first twelve home.

The Pentland Shield for the best all-round athlete in the College, awarded in June 1924, was won by Khan Muhammad of the 1923-25 Division.

The Fischer Cup for tennis was won by R. D. Phillips of the 1923-25 Division.

The cricket team this year was not so strong as during the previous two seasons and the College did not win the Shield. The team put up several very exciting and sporting matches; especially against the Gymkhana, the winners of the Shield.

At the Grigg Sports the College was particularly successful, winning all the four open events and securing in addition one second and one-third place; thus very easily winning the cup offered for institutions taking part in the open events.

The Hockey Team managed to get into the second round of the Hockey Tournament, winning the first Match against the Reserve Police fairly easily. Again as last year Stanes School proved too good.

The post of Vice-Presidentship of the Athletic Club was held by the following officers during the year under report:—

Name of officer.	Period held.
Mr. J. E. M. Mitchell	1st April to 22nd July 1924.
Mr. J. A. Wilson	23rd July 1924 to 31st March 1925.

COIMBATORE,
25th August 1925.

C. R. F. WILLIAMS,
Principal, Madras Forest College, Coimbatore.

Statement I—Showing the revenue and expenditure of the Madras Forest College, Coimbatore, during 1924–25.

Budget head.		Amount.
		RS.
Receipts—		
I (*a*)	Timber	749
(*b*)	Firewood and charcoal	311
II (*d*)	Grazing and fodder grass	303
V (*a*)	Fines and forfeitures	1
(*b*)	Other sources	75,049 *
	Total receipts ...	76,413
Expenditure—		
	B. Conservancy and works.	
B VI (*c*)	Stores, tools and plant	3,738
VII (*a*)	Roads and bridges	1,593
(*b*)	Buildings	2,845 †
(*c*)	Other works	289
B VIII (*e*)	Sowing and planting	2,828
IX (*c*)	Other charges	603
	Total B ..	11,896
	C. Establishment and contingencies.	
C I (*b*)	Pay of officers appointed by the Secretary of State	25,065
II	Pay of officers appointed in India	17,595
III (*a*)	Pay of Subordinate Forest and Depot Establishment	8,035
(*b*)	Pay of Office Establishment	8,964
C IV (*a*)	2. Travelling allowance of Superior Officers.	4,853
(*a*)	3. Do. of Subordinate Forest and Depot Establishment ...	2,545
(*a*)	4. Do. of Office Establishment	1,090
IV (*b*)	1. Fixed travelling allowance and conveyance allowance	7
(*c*)	Honoraria	855
C V (*b*)	1. Rates and taxes	66 ‡
(*b*)	2. Pay of menials	2,811
(*b*)	4 Other charges	6,320
	Total C ...	78,206
	Total B and C ...	90,102

* Includes Rs. 150 realized by the District Forest Officer, South Vellore, by sale of sheds at Komattiyeri.

† Includes Rs 1,924 spent for camp sheds.

‡ Includes Rs. 55 spent by the District Forest Officer, Nilgiris, for the sheds at Ootacamund.

Budget head.			Amount.
Deduct—			Rs.
(1) Revenue Rs. 76,413.			
(2) Expenditure on Museum as follows :—			
	Rs.	Rs.	
Pay of Curator ...	1,298	...	
Pay of Museum watchmen and sundry expenses ...	552	1,850	78,263
Net cost of the College ...			11,839

(Cost of training eight Madras students not taken into account.)

N.B.—The Accountant-General, Madras, in his Summary of Final figures for March 1925 has included Rs. 125 [(Rs. 100 under Travelling allowance of officers plus Rs. 30 Travelling allowance of subordinate establishment — Rs. 5 under C. V b 4 (contingencies)]. As it is not known how these figures were arrived at they have been excluded in the statement and the Accountant-General has been addressed in the matter.

Statement II—Madras Forest College, Coimbatore, 1924–26 division.

Serial number and name of student.	Circle or State to which attached.
1. Vydaynathan	I Circle.
2. V. N. Leapingwell	II Circle.
3. K. P. S. Narayana Ayyar	IV Circle.
4. S. V. Ayyar	VI Circle.
5. K. B Jape	Central Provinces.
6. Muhammad Firoz	Do.
7. Gurdass Singh	Do.
8. K. Y. Rao	Do.
9. A. C. Sarawate	Do.
10. R. L. Yado	Do.
11 M. K. L. Mohan	Do.
12. A. Jabbar Khan	Do.
13. Harcharan Singh	Do.
14. Muhammad W. K. Kokar	Do.
15. Abdul Syed	Do.
16. H. P. Verma	Do.
17. Waliti Ram	Do.
18. N. G. Savant	Bombay.
19. L. G. Lagu	Do.
20. K. M. Verghis	Do.
21. S. A. J. Quraeshi	Do.
22. P. A. Desai	Do.
23. N. V. Divekar	Do.
24. S. A. A. Shaik	Do.
25. B. R. Avatar Singh	Bihar and Orissa.
26. M. S. Abdulla	Do.
27. Muhammad Oosman	Hyderabad.
28. L. L. Saha	Nilgiri State.
29. A. B. Mutunayagam	Private.

APPENDIX I.

Abstract showing the live-stock, stores, tools, etc., in the Madras Forest College, Coimbatore, for the year ending 31st March 1925.

Description of stock.	On hand at the commencement of the year.				On hand at the end of the year.				Difference in value in favour of the year.			Difference in value against the year.		
	Number.	Amount.			Number.	Amount.								
		Rs.	A.	P.		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Survey and other instruments.	1,830	5,707	2	9	1,828	5,491	14	6	..			215	4	3
Tools	874	1,184	1	4	870	900	14	0	..			283	3	4
Furniture	1,699	22,013	14	3	1,697	20,892	14	11	..			1,120	15	4
Tents	72	1,854	8	0	77	2	11	6	..			*1,851	12	6
Uniforms	65	163	10	4	65	159	9	2	..			† 4	1	2
Scientific apparatus ..	1,371	320	1	2	1,352	228	10	3	..			91	6	11
Photographic apparatus.	19	302	3	1	19	260	6	0	..			41	13	1
Gymnasium	9	326	2	4	9	307	1	6	..			19	0	10
Machinery (oil-engine, etc.).	2	2,208	11	6	2	2,089	1	0	..			119	10	6
Miscellaneous articles..	1,143	2,079	14	7	1,136	2,104	13	5	24	14	10	..		
Total ..	7,091	36,160	5	4	7,055	32,438	0	7	24	14	10	3,747	3	11

* Will be given actual value this year ; † Rs. 305-0-6 value of clothes issued.

ANNUAL REPORT ON THE WORK ACCOMPLISHED BY THE FOREST ENGINEERING BRANCH DURING THE OFFICIAL YEAR 1924-25.

The original intention had been to submit a report for the official year based on the form submitted annually by conservators, but on reviewing the material to be submitted it was decided to continue as last year a more or less informal account of the work accomplished. In the first place, the work of the Forest Engineering Branch varies largely from month to month and can follow no set programme except as applying to the Chenat Nayar Exploitation division and to large projects requiring several years to complete such as those under way at Papanasam and Someshwar. Much of the work is of a consulting nature, and during the past year a large part of the time was taken up in organization. Again, being new work it is not generally understood by those not familiar with the day-to-day details, and it is thought that a report on more or less narrative lines will be more widely read and will give a better idea of what is being done than one based almost entirely on statistics.

2. The various activities of the branch will be taken up in the same order as presented last year with the addition of new projects undertaken. Separate reports by the Forest Utilization Officer and the Logging Engineer will be included in order to give in greater detail the accomplishments of their departments.

3. An idea of the development of the work may be had from the increase in the organization. At the beginning of the year the headquarters staff consisted of the Chief Forest Engineer, the Logging Engineer and the Forest Utilization Officer, assisted by Mr. Irwin, Forest Engineer, who had charge of the Chenat Nayar Exploitation division.

The nucleus of the head office staff had been secured, and the Logging Engineer had made a start at training men for his mapping and survey operations.

At the close of the year the Forest Engineering Branch was employing 13 gazetted officers, 22 Forest Rangers, 32 Foresters, and 9 Forest Guards.

Mr. Wernham, Forest Utilization Officer, was deputed for special training to England, the United States, the Philipines and Borneo on 16th July 1924, and his work was taken over by Mr. Ward, Assistant Forest Utilization Officer.

Mr. Bridge came to Madras as Forest Economist on 8th July 1924 and was deputed for special training at Dehra Dun on 1st March 1925, his duties being taken over by Mr. Coode, who was assigned to the Forest Engineering Branch in December 1924 for special training.

Major W. F. Chipp joined the Exploitation division on 26th April 1924 and later took charge of the division from Mr. Irwin, who was placed in charge of roads and buildings and general forest engineering work in the Presidency.

That the amount of work to be accomplished fully justified this large increase in staff will be realized on a perusal of the report.

4. The principal activities of the branch during the year were as follows:—

I. CHENAT NAYAR EXPLOITATION DIVISION.

(a) *Logging and extraction of fuel.*

5. The entire operation has been systematized and costs have been reduced to a point where the products can be marketted competitively either in the log or as sawn products from the Olavakkot mill. Fuel is now being extracted and sold at a small profit, the amount gotten out being limited only by the transport facilities available. The removal of this fuel incidentally is a direct help to the regeneration operations and cheapens to some extent the extraction of logs by clearing away undergrowth at no cost to the logging operation.

Logs can now be placed on the Madras market at a rate which allows us to compete with Andaman timbers.

6. The reduction in logging costs can best be seen from a summary of the monthly cost and production statements for 1923-24 and 1924-25.

Month.	Outturn.		Cost.	
	1923-1924.	1924-1925.	1923-1924.	1924-1925.
	C.FT.	C.FT.	RS. A. P.	RS. A. P.
April	1,938	13,877	5 2 5	1 4 8
May	7,118	12,164	2 2 7	1 6 4
June	4,729	2,339	2 15 9	3 14 7
July	941	1,729	8 9 6	4 6 0
August	Nil.	* Nil.	..	..
September	966	* Nil.	10 11 2	..
October	2,607	3,603	4 14 1	2 9 1
November	4,179	15,194	3 2 1	0 15 9
December	6,784	16,782	2 1 9	0 14 11
January	4,309	14,391	2 13 3	0 14 1
February	12,459	9,571	1 11 8	0 15 7
March	16,088	9,107	1 6 3	1 0 9
Total ..	62,313	98,760	..	..
Average per month ..	11 months 5,665	10 months 9,876	4 2 5	1 13 4

* Unit working at Mount Stuart.

7. The Chief Forest Engineer had predicted that the cost of logging could be reduced to Re. 1 per c. ft. for logs delivered to the mill at Olavakkot, and from the monthly statements it can be seen that this was accomplished during the last five months of the year. As we build up markets and are able to increase production, the costs will be further reduced as they now depend largely on volume of outturn.

8. Our production is now hampered somewhat by lack of carts as the very steep road leading to Sappal makes carting both difficult and dangerous. Nor can we successfully use mechanical transport over this road. As soon as the operations in Sappal valley are completed and are shifted to the Elival valley where the outlet road will be fairly level, it should be comparatively easy to secure carts, and we will also be able to add a unit of mechanical transport, which can carry the very large size logs, which now have to be cut up by hand in the jungle.

(b) *Olavakkot Saw Mill.*

9. Due to some of the heavy machinery from England being months late in delivery, the saw mill was not ready for operation until the last of the year; hence no commercial results could be obtained. What sawing was done was for departmental use in the mill buildings.

10. From extended surveys and enumerations carried out by the Logging Engineer, we have established the fact that there is sufficient timber tributary to the saw mill to keep it supplied with timber for at least 20 to 25 years, which would cover the ordinary life of the machinery. This will fully justify the investment being made in buildings and plant as the operation will continue long enough to write off the entire value.

11. The main problems now to be solved are the increase of production by the mill and the development of markets to absorb the outturn. At the present time, the mill is busy with orders, not all of which will be immediately profitable, as we must accept orders to start with at the current market rates paid for inferior products. Consumers cannot be expected to pay higher rates until they have satisfied themselves through actual use of our products that they represent greater value. Also as the mill becomes booked up with orders, we can accept the more profitable ones only. The eventual success of the venture will have to be judged from now on by a monthly increase in income.

12. We have many problems to solve in the way of learning how to handle new timbers, what uses they are best adapted for, and in training our men in making the various products. For the first year or so much of the work must necessarily be of an experimental nature and experiments are costly. It must be kept in mind that thousands spent now in demonstrating the usefulness of some of these new timbers will be returned many times over in future years, when these same timbers will be made a source of profit from the thousands of acres of similar forest now lying idle.

(c) *Mount Stuart logging.*

13. During July and August the entire logging plant was moved to Mount Stuart in order to see whether it would pay us to keep it occupied there during the monsoon months when work at Sappal was not practicable. We also wished to learn whether this type of machinery was adaptable to Mount Stuart conditions.

The result of the experiment showed—

(1) That it will not pay to move heavy machinery and equipment long distances for short periods of work.

(2) That a saving in the cost of operations at Mount Stuart of Rs. 4,000 per annum could be made by the use of saws for felling and cross-cutting.

(3) That we can devise a system of working at Mount Stuart combining animal dragging and the limited use of machinery, which will be economical and more suited to some of the localities there than is the present method of working.

(4) The net cost of this experiment to the department was Rs. 520 as shown in the Chief Forest Engineer's report of 8th November 1924.

II. Tinnevelly Evergreen Forests.

14. A great deal of work has been carried out in these forests during the year as will be seen from the Logging Engineer's report.

To summarize—

(*a*) 2,500 acres of timber forests have been enumerated.

(*b*) 22 miles of metre gauge railway have been surveyed and estimates are in course of preparation.

(*c*) About 12 miles of flume have been surveyed with estimates under preparation.

(*d*) Paper has been made from the bamboo cut from sample plots in the area and a report on it submitted by the Deputy Controller of Stationery, which gives a very satisfactory forecast of its value. It is a very high-grade paper being free from specks and of a very tough texture which promises good wearing qualities.

The work remaining to be done in this area before a complete scheme can be outlined is as follows:—

(*a*) Government's attitude towards the Public Works department hydro-electric-irrigation scheme must be determined before we can select definite locations for the proposed plants.

(*b*) The bamboo areas must be checked definitely by survey so that we can know exactly what areas of raw materials are available.

(*c*) Further experiments must be made in connexion with the regeneration of the Eta bamboo.

(*d*) Flume surveys must be extended.

(*e*) Final estimates must be worked out for all works to be undertaken.

The scheme can hardly be ready to present to Government before October 1926.

III. Mount Stuart Roads and Buildings.

15. The Mount Stuart Ghat Road was completed during the year and opened to traffic. The season's supply of logs from the forest coupes was taken out over the new road at a reduction in carting rates.

The exceptional monsoon storms of 1924 caused much damage to the road however and cost the department about Rs. 16,000 for repairs. Also the opening of the road to heavy log traffic before it could be properly consolidated caused the road surface to be cut severely.

Surveys were completed for an extension of the road into the timber coupes on a less expensive scale, the extension being authorized by Government in the 1925-26 budget.

The plans for a forest station at Topslip were also accepted by Government, and work is now proceeding in the erection of buildings.

IV. The Logging Engineer.

16. As Mr. Pearce's work has been of such importance and is proceeding under methods new to India, his entire report is submitted as it is thought it will be of general interest.

"*Preface.*—The Logging Engineering division was organized in October 1923 on the arrival of the Logging Engineer, Mr. J. Kenneth Pearce, from America. The ensuing six months (which are covered in detail in the report of the Forest Engineering Branch for the official year 1923-24) were occupied mainly in reorganizing the Chenat Nayar Exploitation operation, and planning the future logging work. The Logging Engineer rigged the first high lead logging setting with haul-back in South India and trained the operating crew, and assisted the Forest Exploitation Officer-in-charge in the installation of Tractor-trailer-pole roads and other systems which were successful in increasing output and reducing the cost of production. A saw mill and box factory was designed for Olavakkot and the mill site surveyed. Instruction of men posted to the Logging Engineer in forest enginering methods entirely new to India; surveys for wire ropeways and other miscellaneous works occupied much of the Logging Engineer's time.

"It seems advisable, as an introduction, to give the reader of this review some idea of what this newest of the forest and engineering professions which we call 'Logging engineering' really means. Following are extracts from a lecture delivered before the students of the Madras Forest College by Mr. Pearce (published in full in issue of the Madras Forest College Magazine):—

'From an economical and practical viewpoint, "engineering" may be defined as the science of expending a rupee so as to bring the greatest returns, that is make a rupee earn the most interest. Logging Engineering then, makes the logging rupee, or in a broader sense, the forest rupee, bring the greatest returns. My subsequent remarks will I hope make this clear to you.

'With the logging off of easily accessible timber, on plains and foot-hills, forest exploitation operations have been pushed back into the mountains. Topographical difficulties had to be overcome by inventing new mechanical logging methods which made the logging game highly technical. Costly mistakes in laying out road or other transport systems have taught the necessity of planning out operations far ahead of actual logging so that mistakes might be anticipated and avoided and the whole operation more efficiently arranged.

'The most efficient harvesting of a forest crop requires also a knowledge of trees, their characteristics, habits, state of health, maturity, etc. The perpetuity of the forest crop must be borne in mind—necessitating a knowledge of sylviculture and forest management.

'Thus we see how the demand arose for men with a knowledge of and training in forestry, engineering and technical logging.

'The profession of Logging Engineering was definitely established in 1912.

'Briefly the training of a logging engineer to-day includes (1) forestry in all its phases, (2) the basic principles of physical science—which includes something of civil, mechanical, electrical and hydraulic engineering, (3) all technical logging methods and systems, and (4) cost accounts. This training is required in order that the Logging Engineer may (1) conduct forest reconnaissance, (2) make timber enumerations or cruises and topographic maps, (3) determine the logging method best suited to the conditions, (4) make working and operation plans, (5) survey

transport roads and operation layouts, (6) determine water-supply, power transmission, etc., and (7) provide for the sustained yield of the forest, acting as the liaison officer between the exploitation on the one hand and the regeneration on the other.

'The actual felling, yarding and transportation of logs he leaves to others, apart from advising them on technical problems, while he goes on planning ahead for the most efficient operation, to get the greatest returns from the forest capital as well as money capital invested, thus fulfilling my definition of Forest Engineering'.

"*Sappal project.*—The 1st April 1924 found the reorganized Chenat Nayar Exploitation operation running satisfactorily in Dhoni valley; the designs and surveys for the Olavakkot Saw mill made; the Mount Stuart monsoon operation map and plan finished, and other work undertaken by the Logging Engineer during the previous six months completed.

"With the extension of logging operations into Sappal valley imminent, it was necessary to obtain a cruise or enumeration of the stand of timber, and to determine the most economical means of extraction. To do this in country of extremely rough and broken topography necessitates a large scale, accurate topographic map showing many details omitted in the ordinary small scale Forest maps available. Accordingly the Sappal Project was begun by the Logging Engineer in April with the assistance of an Assistant Conservator and 3 Rangers. A theodolite traverse baseline was run up the centre of Sappal valley, and elevations obtained with a dumpy level. Mapping strips were run from the baseline up to the timberline, offset 4 chains and back down, tying into the baseline again. Instruments used were the Topographic Trailer Tape, Improved Abney Level and U. S. Forest Service Type Compass. This system, first introduced in India by the Logging Engineer, and modified by him to suit local conditions, permits every detail of topography to be sketched on the ground. For the Sappal map the Topographer sketched in the contours for two chains on each side of his strip line. He was followed by a Cruiser who, using the same compass line, enumerated all the timber for a chain on each side of him, tallying middle diameters and merchantable heights. When 5 chains were covered the Cruiser was so informed by the Topographer, and he started a new cruise sheet. Thus the stand of timber on each acre and the location of that acre on the map is known. Since the strip mapped was twice the width of the strip cruised, a 50 per cent enumeration was obtained.

"The Sappal project continued through April and was completed in May. A number of changes in the staff were made, an Extra Assistant Conservator, Mr. B. A. Cariappa, being substituted for the Assistant Conservator, and a head surveyor, Mr. K. N. Achuthan who was an experienced transitman, being obtained from the Survey department in May C. B. Pemmaia who had considerable experience scaling after the fallers and buckers in Chenat Nayar, was engaged as a Forester and taught cruising, at which he has become very proficient.

"During May the Logging Engineer, assisted by a portion of the crew, made a survey of the Beypore Forest Depot, Malabar, and worked out a log storage scheme which will enable the logs to be economically stored on land under shade, with a capital expenditure of only Rs. 15,000.

"Sales made indicate that an average increase in price of Re. 0-4-0 per c. ft. may be obtained for such shade stored logs as compared with those left in the water and mud exposed to the action of sun and teredos.

"The survey for a telephone line from the Olavakkot mill site to Sappal bungalow and thence to Naickampara in Dhoni valley was also made during May.

"In June the Sappal map was compiled, and operation plan prepared, and the alignment surveyed and location stakes set for the main transport (cart) roads. Having an accurate large scale map it was possible to lay out a road system so that the logs could be yarded direct to a cart-road and loaded on carts at the spar tree, eliminating slides and drag-paths.

"In addition to directing the above work the Logging Engineer lectured to the students at the Madras Forest College, Coimbatore, conducted the final examinations in surveying, and addressed the Forest Conference at which the Sappal and Mount Stuart topographic and cover maps were exhibited.

"As no volume tables for the evergreen species were in existence, in order that the cruise data could be converted into cubic feet, a method was devised by the

Logging Engineer, and volume tables, based on measurements of felled and bucked trees, were compiled. Poon, Mesua, Cullenia, Dichopsis, Venteak and Eugenia were among the important species for which volume tables were prepared

"This involved a very large amount of work.

"The cost of Logging Engineer's staff during April, May and June totalled as follows:—Pay (Officers and Subordinates) Rs. 1,450; allowances Rs. 555; coolie labour Rs. 356. 2½ miles of baseline were run, 508 acres mapped and 442 acres cruised in Sappal valley, all computations and calculations completed and maps and cover maps drawn; 2 miles of logging road located; and the telephone line and Beypore Depot surveyed; and volume tables for the evergreen species compiled. It must be remembered that this was all entirely new work to the men necessitating their spending a considerable amount of the time in receiving instruction from the Logging Engineer."

"*Papanasam project.*—The entire party was transferred to Tinnevelly district in July, and the Papanasam Forest project carried on under the personal supervision of the Logging Engineer until the end of September. The Location and valuation survey for 22 miles of metre gauge railway connecting Kodamadi in the Papanasam forest with the main line of the South Indian Railway was the principal task. This is an extremely important item in the solution of the transportation problem involved. Investigation of other details connected with the proposed development in Papanasam Forest, including selection of sites for pulp and paper mills, saw mills and other forest industries, was undertaken.

"A theodolite traverse-dumpy levelled line was run along the routes selected for the railroad by the Logging Engineer, plotted on a scale of 100 feet to the inch and accurate topography with 5 feet contours taken on each side of the line, from every 100′ station. From the paper location map thus prepared, earthwork quantities and cost estimates are being prepared. The line runs as follows: From Ambur railway station across the plains via Mudaliyarpatti and Vadamalai-Samudram and Karumpani Kular, through the rock gap north of Papanasam, crossing the canals and river at Melpattu to the reserve boundary, thence climbing on the maximum gradient of 1 in 33 up the ghats (in general paralleling the Papanasam Mundanthorai road) to Kottantalam valley. This was selected as a mill site in case the proposed P.W.D. hydro-electric development, with a dam across the Tambraparani river at Pachaiammen Koil is carried out. A second line leaves the first near where it crosses the main road, continues at 1 in 33 around the head of Kottantalam valley and crosses the main ridge above the 750 feet contour, the height of the proposed dam. Owing to the narrowness of the ridge it is impossible to get even a maximum 20° curve around it, and a 600′ tunnel will be necessary. After crossing the ridge the line continues level, keeping about 30′ above the high water level of the proposed reservoir (750 feet elevation), to a mile west of Taravattamparai, and then continues on water grade along the North Bank of the Servai Ar to Kodamadi, another prospective mill site. An alternative 'Ghat section' was also run, taking off from the first described line near Melpattu, following up along the north-east side of the Papanasam valley, crossing it near the reserve boundary, and then climbing 1 in 33, crossing the Chepp Ar, through the pass at the head of Kottantalam valley, and thence level to the tunnel location on the second line.

"The actual survey of the line presented many difficulties owing to the huge rocks, cliffs, and dense scrub jungle, and the amount of work accomplished by the crew is highly commendable. The party in July consisted of Mr. Cariappa, Extra Assistant Conservator, Surveyor Achuthan, Rangers Monnappa and Appiah, and Foresters Pemmaiah, Poduval, Ramani and Muddappa, the latter two being selected by the Logging Engineer, with the permission of Government, from outside the Forest Service and entertained as Probationary V Grade Foresters. In August, Rangers Kuttapan Pillai and Doomashetty joined duty, and Forester N. C. Madapa was engaged. Ranger Vridachalam and Forester II Grade Raman Nayar joined in September. When the party left early in October Ranger Vridachalam was left to complete the contouring and to erect cairns for permanent marking of the line.

"The total amount spent on the Papanasam project, with the exception of the pay of the Logging Engineer himself, was Rs. 5,920 or Rs. 269 per mile of railway line. This expenditure consisted of pay of establishment Rs. 2,412 travelling allowance (including transfer travelling allowance) Rs. 2,712, coolie labour Rs. 654 and contingencies Rs. 142."

"*Elival project.*—The Logging Engineer proceeded to Olavakkot late in December and after advising the Forest Engineers on various problems connected

with the erection of the saw mill and in the logging operations, made a reconnaissance of the Elival country, Chenat Nayar reserved forest. The location of the baselines was planned, and on 16th October, with the arrival of the crew from Tinnevelly, work began. The baselines were run by a party under the charge of Mr. K. T. Mathew, Assistant Conservator of Forests, who had joined the Division on October 1st. The personnel of the Baseline crew included Surveyor Achuthan, Ranger Doomashetty, Foresters Mudappa, Poduval and newly entertained Foresters Augustine, Aiyappa and Muthana (the latter in November).

"The topography being extremely broken and the slopes very steep, 22 working days were required to complete the 8 miles of theodolite baseline. The entire baseline crew was then (mid-November) transferred to Someshwar project.

"The mapping and cruising parties under Mr. Cariappa consisted of Rangers Monappa, Appiah, Kuttapan Pillai and Aiyanna and Foresters Pammaiah, Ramani, N. C. Maddappa, and new probationary Foresters selected by the Logging Engineer, Quadir Baig, Pooviah and M. B. Madappa. Forester Raman Nayar was draftsman for the project. Field work actually commenced on 24th October, the previous week being occupied with plotting baselines and preparing topog strips and cruise sheets. Approximately 2,500 acres were completed by 20th December.

"There was considerable loss of time through illness, principally malaria. Although there were enough men posted to the project to form three parties, it was only possible to muster two parties most of the time, and even then the officer in charge had to himself frequently fill some vacancy to complete a party.

"Difficulty was also experienced through the refusal of the coolies to camp in the jungle. Returning to their villages on the plains every evening, they could not reach the work spot until the middle of the morning.

"The mapping of the high inaccessible Mesua Area of Elival was continued after the holidays by Ranger Monappa and Foresters Ramani and Ramakrishnan. An additional 1½ miles of baseline was run and 320 acres were mapped and cruised up to 31st March. The Party also spent a week in making a check enumeration of the logged portion of Sappal valley and another week demonstrating the Logging Engineer's mapping and cruising methods to the Dehra Dun and Madras Forest College students. The expense incurred during the last quarter totaled Rs. 1,454 of which Rs. 646 was for coolie labour, and Rs. 808 pay and travelling allowance of esablishment.

"During October the Logging Engineer, in addition to directing the Elival project and instructing new men, lectured for a week at the Madras Forest College on 'Logging Engineering'. Those lectures, which have since been published by the College, included an exposition of the meaning of logging engineering; reconnaissance; planning and running baselines, mapping and cruising, compilation of cover maps, planning exploitation operations, and hydraulics. A second series of lectures on Logging Methods, Portable saw mills, etc., are to be given before the close of the school year.

"The Logging Engineer also erected the new two-drum skidder at Sappal and trained the crew in its operation."

"*Semeshwar project.*—Three weeks of November were occupied by the Logging Engineer in making a reconnaissance of the Someshwar and Andar reserved forests in South Kanara to plan the organization and layout of the mapping and cruising project for these areas. The 24,000 acres comprising these reserves were covered very intensively, 16 to 18 miles a day often being traversed through the jungle. The Logging Engineer was accompanied on this reconnaissance by Ranger Doomashetty.

"With the arrival of Mr. Mathew and the baseline crew from Elival late in November, the Someshwar Project was instituted. By the 18th December (after 20 working days) 12½ miles of theodolite traverse dumpy levelled primary baseline and 8 miles of compass traverse-Abney levelled secondary baseline had been completed. This good record was made in the face of labour difficulties and an average sick loss of 15 per cent. The party was augmented in December by the arrival of 6 Rangers and 1 Forester posted to Someshwar by the Chief Conservator for training for the Working Plans Circle.

"Calculation of latitudes and departures and plotting of the baselines was taken up after the Christmas holidays, and field work on compass baselines was continued. Mr. P. W. Davis, Assistant Conservator of Forests, joined the division 15th January, and took over charge from Mr. Mathew, who was transferred to Papanasam project. With some 30 miles of baseline completed, the mapping and

cruising of the 18,000 acres of Someshwar reserve was started the third week in January. Rangers Appiah and Aiyanna from Elival project were, with Ranger Doomashetty, the only experienced men—Rangers Kannan and Ganapathy and Foresters Janardanan, Mudapa, Muthana, Aiyappa, Augustine, and D'Souza (the newly entertained) made up the balance of the useful crew. Rangers Thiruvenkatachari, Paramasivam Pillai and P. S. Nayar and Forester Poduval were absent so much as to be of little value and the two former Rangers were later reverted to the regular line at their own request. Forester Raman Nayar was occupied with drafting work for a time and then went on leave.

"Mr. Cariappa succeeded Mr. Davis in February and remained in charge during the rest of the official year. By 31st March approximately 5,000 acres had been mapped and cruised. It is anticipated that the entire project will be completed by June 1925. The expenditure on Someshwar project up to 31st March is as follows: pay Rs. 5,536: travelling allowance Rs. 4,831 (includes transfer travelling allowance of new Rangers from East Coast), coolie labour Rs. 1,359 and contingencies Rs. 215. Labour has always been very scarce at Someshwar and has seriously handicapped the work. Fever (malaria) was prevalent among the party in February and March and practically every man was off duty one or more times for a week or ten days."

"*Nellikutta project.*—In December the Logging Engineer made a reconnaissance of the Nellikutta reserved forest, Nilambur, and a portion of the new Amarampalam range. The Conservator of the Sixth Circle wanted this mapped to show the areas unsuitable for teak plantation, the area on which teak might be planted with expectation of a reasonable degree of success, and a cent per cent enumeration of the stand of timber. The Logging Engineer suggested mapping with the trailer tape system taking 10 ft. contours on a scale of 300 ft. to the inch, with particular attention paid to marking in bamboo growth and marshy or swampy areas; two Cruisers to tally DBH and merchantable height of all trees on each two-acre plot, and take additional notes on ground cover and soil classification in so far as possible.

"Mr. Hicks, Assistant Conservator of Forests, posted to the Logging Engineering division for training for the Working Plans Circle, was placed in charge of the project and work commenced on 20th January. A special baseline party under Mr. Cariappa ran the 6½ miles of baseline required during the period 20th to 29th January and were then transferred to other projects. The mapping and cruising work started the first week of February and was practically completed by the end of March. A total of 39 days of field work were occupied in mapping the 1,539 acres of the project (the northern hilly portion of the reserve was excluded by the District Forest Officer, Nilambur). Eight days were spent in office work, preparing topog and cruise sheets, calculating and plotting the baseline, and preparing field sheets.

"All the mapping work was done by one party consisting of Ranger Kuttapan Pillai, Cruiser and Chief of party, Forester Pemmaiya, Cruiser, Forester N. C. Madappa Topographer and Forester Pooviah, Compassman. They were on the job all the time and accomplished more than any other crew in the Logging Engineering division. As Mr. Hicks was ill with fever much of the time, Ranger Kuttapan Pillai deserves special commendation for carrying on the project. Ranger Venkataraman was attached to the party for training during February and posted to Nalkur project in March.

"The cost of the Nellikutta project was Rs. 1,672 itemized as follows: Mapping and cruising—pay of 1 Ranger for two months and 1 Ranger for one month Rs. 375; pay of 3 Foresters for two months Rs. 240, travelling allowance, including transfer travelling allowance Rs. 378: peons and lascars Rs. 62 and coolie labour Rs. 128. Total Rs. 1,143.

"Baseline—pay of Extra Assistant Conservator, Surveyor, 1 Ranger, 1 Forester and lascars for one-third month Rs. 169; travelling allowance of the above Rs. 200; pay of 1 Ranger and 3 Foresters for half month Rs. 123; coolie labour Rs. 37. Total Rs. 529. This works out at practically a rupee an acre. This does not include the overhead of the Logging Engineer, a distribution of which has not yet been made; and the pay and travelling allowance of Mr. Hicks, as an officer was not really required with only one party, and as he was posted to learn the work, his expense is properly chargeable to the Working Plans Circle."

"*Papanasam Flume project.*—The Logging Engineer proceeded to Tinnevelly district on 1st February and started a party to work on the second big unit of transportation in the Papanasam Development project—the survey of the line of a flume for the transportation of reeds from the reed area to Kodamadi. The

location of the main flume as planned is from Ossipathey Pass above Kodamadi up on a uniform gradient of 1 in 20 to the fork of the Servai Ar below Wood's Hut. Branch flumes up the Servai Ar and the Val Ar tap the enormous reed areas drained by these two streams. From Ossipathey Pass the reeds will be dropped down a chute to a pond at Kodamadi. The area traversed by the chute was mapped on a scale of 200 ft. to the inch, and the flume line had been run 4 miles from the Pass to the Fork by 31st March. Owing to the extremely difficult nature of the country, progress was very slow. An average of 20 per cent of working time was lost because of sickness. The party under Mr. Mathew consisted of Surveyor Achuthan, Rangers Fenn and Vridachalam and Foresters Quadir Baig, M. B. Madappa, Parameswaram Pillai and Chandrasekaran Nayar. Ranger Ponniah and Forester Paichia Nayudu were absent a large proportion of the time, and Ranger Rajagopala Ayyangar was on leave the whole time. Expenditure to 31st March was Rs. 6,407 divided as follows: pay Rs. 2,719, travelling allowance Rs. 2,447, labour Rs. 1,191, contingencies Rs. 50."

"*Beypore Depot Saw Mill.*—The Logging Engineer left Papanasam project the middle of February and undertook the erection of a portable saw mill at Beypore Forest Depot, Chaliyam, Malabar, which was accomplished in ten days with only the help of one fitter, a driver, cleaner and a few carpenters and coolies. The crew was then trained in the operation of the mill, filing saws, etc. The mill is cutting up Nilambur teak, principally into sleepers, of which it has a daily capacity of 80 to 100.

"In December the Logging Engineer inspected the Baliapatam saw mills at the request of the Director of Industries, they having approached Government for a loan under the Industries Act. A report was made on the efficiency of the plant and management, future prospects, and equipment needed to improve the mill."

"*Nalkur project.*—The Logging Engineer made a reconnaissance of a portion of the Nalkur reserved forests, South Mangalore division, South Kanara, in March at the request of the Conservator of the Sixth Circle. This forest contains much over-mature Hopea, as well as other evergreen species, and it is planned to convert these into railway sleepers. An enumeration had already been made, but as the stand was scattering and the topography very broken, and the existing maps of too small scale to show essential detail, a large scale topographic map showing the location of the exploitable timber, on which the most economical system of dragpaths could be laid out, was desired. Although some 6,000 acres are eventually to be covered, the Logging Engineer, owing to the tremendous amount of work to be done and the shortage of men, could only spare one party (one Ranger and two Foresters) which commenced at the end of March, and will, it is anticipated, complete the 1,000 areas to be worked during the ensuing year before the end of May 1925.

"While at Nalkur the Logging Engineer also rigged up a device for dragging a number of sleepers at a time by elephant. As the sleepers will be hand-sawn, it is hoped that this will permit the sawing to be done where a tree is felled, and the sleepers dragged by elephant to the cart-roads, thus paying dragging costs only on the finished product instead of the entire log with its large percentage of waste. The Range Officer and Rangers were taught to splice wire rope, so that they could rig up more of the dragging contrivances themselves.

"Mr. Davis accompanied the Logging Engineer to Nalkur as it was planned that he should exercise occasional supervision over the Nalkur project, as well as looking after the Beypore saw mill. He was invalided to Ootacamund with fever toward the end of March, however."

"*Conclusion.*—The work done by the Officers, Rangers and Foresters in the Logging Engineering division during the year under review has been accomplished under extremely difficult physical conditions. In probably no other branch of Government service is such an expenditure of physical energy coupled with a high degree of mental alertness and keen judgment required. Camping in tents or grass huts in the depths of the forests, lacking the normal comforts of civilization; walking and climbing miles through pathless jungle every day, in all weathers, continually exposed to fever and the risk of attack by the wild animals which every year cause great loss of human life in India—this is a severe test of the metal of a man. Many failed the test, some of them were reverted to the regular line, and, meriting no mention, receive none in this report. To those men with nerve and stamina who made good, credit for their accomplishment and recognition of service performed is due. A proposal has long been before Government to grant them a special monetary allowance, and it is to be hoped that this proposal will be soon approved.

"The Probationary Fifth Grade Foresters, a score of whom were engaged by the Logging Engineer from outside the Forest department, are worthy of mention. Selected from over 200 applicants, they are practically all men of S.S.L.C. educational qualifications, and some have even passed the Intermediate Examination of the Madras University. Some are ex-service men, all are of good physique. On a salary of Rs. 30 per mensem *plus* Rs. 10 fixed travelling allowance, some of them have not only done a Ranger's work as Topographers and Cruisers but have done it better than many of the Rangers themselves. A scheme for higher pay for these Foresters has also been put up to Government for sanction.

"The methods introduced in Madras by the Logging Engineer have attracted considerable attention among Forest Officers elsewhere in India. The Chief Forest Officer of the Andamans made a trip to Madras in November and inspected the operation planning work being done by the Logging Engineering division. He was so impressed by its value that he sent an officer to study under the Logging Engineer for a month, to introduce his methods in the Andamans.

"Coorg sent 2 Rangers to learn the work, and the Forest Engineer, Coorg, also paid a visit to various projects of the Logging Engineering division.

"New work starts slowly. Each new man posted to the Logging Engineer had to be given instruction and then gain experience through long practice before becoming adept and able to work rapidly. Consequently, it has required more time in the past to cover the ground than should be necessary in the future. The cost of the projects will decrease with the speed gained through long practice, and as the subordinates improve in ability to handle greater responsibility."

V. Forest Utilization.

17. The work of this branch has expanded so rapidly that it seems justifiable to include Mr. Ward's complete report in this review of the year's work.

The foundation of all forest development in the Presidency must be based on the work done in 'Utilization' and 'Forest Economy' and much has been done in the past year to place this work on a sound footing.

Report for the year 1924-25.

"1. Since the last report was issued, the staff of this branch has been increased, in accordance with the necessary organization required to deal with the various subjects reported on below, so that it now consists of—

(*a*) A Forest Utilization Officer, whose work it is to deal with the export of timber and the placing of all kinds of forest produce on the market to the best possible advantage, besides organizing supplies as they are required for each market. This post was held by Mr. J. W. K. Wernham from the commencement of the year up to 16th July 1924; Mr. H. P. Ward held charge for the rest of the year.

(*b*) A Forest Economist, who deals with general research work, the collection of reports received thereon, collection of data on Madras timbers and their uses, the co-ordination of the individual species with individual uses, the issue of pamphlets, the supply of timber samples, general propaganda work and the formation of an utilization library. Mr. M. F. Bridge started this work on 8th July 1924 and was confirmed in this post receiving official recognition on 26th February 1925 when, on being deputed to Dehra Dun for two months, the work was taken over by the Forest Utilization Officer as a temporary measure.

(*c*) Two Utilization Range Officers were appointed on 1st November 1924, one being posted to the southern area with headquarters at Trichinopoly and one to the West Coast area with headquarters at Calicut; their work is to act as liaison officers between the Forest department and local merchants. They enquire into all the markets extant and potential. They report the names of all interested persons, the quantity and condition of stocks held and the likely demands of timber dealers, the rates wholesale and retail; the sizes and species in demand, transport charges between important centres, the uses to which the various timbers are put and the methods by which the timber is brought to the market and disposed therefrom. They also assist in the recruitment of labour for forest works and do local propaganda work.

(*d*) The post of Assistant Forest Utilization Officer has just been sanctioned which will be filled from the beginning of the new year. This officer will be selected from the Madras Forest Service and his work will be mainly to deal with supplies and sales of minor forest produce.

(*e*) *Deputations.*—During the year Mr. Ward has been on two months' deputation to Dehra Dun to study the works now being carried out there such as artificial seasoning, timber testing, wood preservation, wood working.

In July Mr. Wernham was deputed on an 18 months' course to the University of Washington to study the methods in vogue in America.

On 26th February 1925 Mr. Bridge was deputed to Dehra Dun for two months, to study research work. His first month was such a success that in all probability his deputation will be extended for a further four months.

2. Individual works now being dealt with in the Utilization branch:—

(*a*) *Organization.*—A very real need has been met by the establishment of one central office where the consumer can apply for his requirements and to which the local officer can apply when requiring a market for any of his produce. During the year much has been done to organize some control of supply and demand whereby the two can be brought closer together, but there is much more still to be done.

(*b*) *Export of timber.*—All timber exported to Europe passes through the hands of our London Agents, Messrs. W. W. Howard Bros. & Co., who have the sole right over the sale of Indian timbers, this in itself is not a very satisfactory state of affairs, but it must be stated that Messrs. W. W. Howard Bros. & Co. have done a tremendous amount of spade work in establishing some of our timbers on the home market.

A statement giving detailed transactions with Messrs. Howard Bros. & Co. is attached to this note, and on the whole, it will be seen that they have been fairly satisfactory.

While in America Mr. Wernham is investing the possibility of selling some of our timber over there, already we have had several enquiries from various timber firms in America.

(*c*) *Sleeper supply.*—Consequent on the formation of a Southern India Sleeper Pool, demands have greatly increased. A large and regular outlet for established sleeper species may be confidently anticipated. These latter, however, are not in all cases easily exploited, portable saw mills are urgently required to permit of stump site conversion and the consequent improved facility of, and economy in, extraction. In the meanwhile, tests are being made of certain of our commoner species which, it is hoped, may meet the exacting nature of service in the line as well as the no less exacting specifications of the railway companies. It is hoped that the suggested installation of a powellizing plant will in fact eventuate, since such would very materially assist the department in using lesser known and lesser naturally durable species. A small portable saw mill has already been erected at Beypore and it is now busily engaged in sawing sleepers from Nilambur timber, for supply to the railways in 1925-26.

(*d*) *Markets.*—In the past very few sales were ever executed other than by public auction of round logs, in these auctions logs were put up in lots containing both good and bad logs, with the result that very often the department did not obtain a fair price for its better timber. Although auctions can never be abandoned, much can and has been done to provide a better market for the larger and more valuable logs. With the installation of two new saw mills during the year, one at Olavakkot and one at Beypore, an opening has been made for the sale of sawn timber, and although these mills only started operations in the last month of the year, the Beypore mill is fully booked up in sawing sleepers, whilst numerous enquiries have been made for boxes and mine skids, etc., which should keep the Olavakkot mill busy for some time to come.

(*e*) *Timber testing, research and the collection of data on Madras timbers and their uses.*—This section of the work can be divided into three classes:—

(i) Laboratory tests of timbers at Dehra Dun.

(ii) Practical tests of timbers in actual service by the Forest department or by interested persons, firms or other departments.

(iii) The collection and correllation of existing records.

In the case of (i), scientific reports of great practical value are received; such deal with the mechanical properties of the various timbers and with their adaptability to preservative processes; the information in such reports indicates

broadly the suitability or otherwise of each timber for various uses. It is impossible to overestimate the value of the work that the Forest Research Institute, Dehra Dun, is doing at present in this direction. In the case of (ii), the reports received are obviously of great value as indicating definitely whether such and such a timber is suitable, or is not suitable for any specific purpose, and the same may usually be said of (iii). Laboratory tests have up till now, been chiefly confined to potential sleeper woods, and to the production of strength figures of our lesser known (but common) species. With regard to practical experience tests, arrangements have been made with the various firms to test certain of our species for some given purposes, and those reports which have already come to hand are of very great value. Appended is a list of some of the tests which have been and are being applied to some of our timbers by private firms, and other Government departments:—

Dichopsis elliptica for slack cooperage.
Do. for mine skids.
Anogeissus latifolia for picking arms.
Lagerstroemia lanceolata for picking arms.
Various species for piles in salt water.
Dodonea viscosa for ship fenders.
Grewia tiliafolia for motor hood frames.

(*f*) *Tool handles.*—Tests carried out at Dehra Dun on these implements show that Anogeissus latifolia is as good as Ash or Hickory, Terminalia tomentosa is also very satisfactory, and grewia tiliafolia is good. There is the possibility of a very large market in tool handles, concerns such as railway companies and the Public Works department requiring a large quantity every year.

It is hoped, when all available information has been collected on the subject to arouse the interest of local enterprise, and start one or more factories for the manufacture of this article.

(*g*) *Paper pulp.*—Work is proceeding on the investigation of the pulp resources of the Presidency, notably of the Eta area in Tinnevelly where data of Eta yield and lime supply are being collected, also of the bamboo area of Upper Godavari in connection with the Carnatic Paper Mills at Rajahmundry.

A very recent report from Dehra Dun holds out every hope of Eta developing into an excellent paper material.

(*h*) *Matches.*—Enquiries are still being received for suitable woods, and the results of tests made on some sixty different species available in Madras have been collected, of these species many are of poor suitability, many are fit for good cheap quality matches, and some should do for a higher standard of quality, the greatest difficulty that is being experienced at present, however, is the inability to produce the raw material at a rate favourable to the manufacturer, this however is due in most cases to the distance of the factories from the source of supply, transport costs thus being out of all proportion to the value of the wood.

(*i*) *Pencils.*—Little progress has been made in this direction, as there is only one factory in the Presidency and that has not been working up to its full capacity. Several timbers however have been tried, some of which have proved suitable for cheap pencils, but so far no outstanding pencil wood has been found, as in the case of matches the factory is too far from the source of supply.

(*j*) *Boxes.*—A box-making plant has been installed at Olavakkot in conjunction with the saw mill, but since the plant was only completed towards the end of the year very little has been done. Investigations have been made however regarding the demand, sizes required, etc., with the result that there is every hope of establishing a large market both for tea chests and packing cases and there should be little difficulty in the disposal of the output when the plant is working to its maximum capacity.

(*k*) *Minor forest produce.*—Enquiries for minor forest produce continue to be received—the most important of which are Cutch, Divi Divi, Myrabolams, Tannin-barks and Nux-vomica, there are prospects of developing our trade in these products to a very great extent, but little time has been found to take up this subject in detail. But with the appointment of a special officer for this purpose, it is hoped to increase our output considerably at the same time to place these products on the market in a better condition than has been possible heretofore.

(l) *Grading of timber.*—The work has been handicapped by the vast variety of sizes both of sawn timber and logs, in demand and by the lack of reasonable specifications in the bigger markets.

It is proposed now, in conjunction with Dehra Dun and other provinces interested, to form a set of grading rules applicable to the whole of India, so that the consumer may know exactly what he is purchasing even without inspecting the timber in question. This system has been carried out successfully both in America and Europe.

(m) *Miscellaneous.*—Enquiries for woods for uses ranging from billiard tables to walking sticks and skittle balls have been received during the year, many of these articles have been turned out in numerous species of Madras timbers. A large quantity of hand samples have been prepared which will be given to interested persons. When an enquiry for any specific work is received, samples of the most suitable timbers will be sent, so that the customer may make his own selection also it is hoped to get out small notes on the value of each species to be supplied with the hand samples.

One set of samples is being sent to Mr. Wernham in America at his request, since he feels sure he can interest some of the firms over there in our woods. During the year a considerable time has been employed in work in connection with the British Empire Exhibition."

Results of transactions with Messrs. W. W. Howard Bros. & Co., during 1924-1925.

Items number and species.	Stock on hand on 31st March 1924.	Quantity exported during 1924-25.	Total quantity with Howards during 1924-25.	Quantity sold by Howards during 1924-25.	Net amount realized (after deducting charges incurred by Howards).	Stock on hand on 31st March 1925.
	C.FT.	C.FT.	C.FT.	C.FT.	RS. A. P	C.FT.
1. Laurel ..	2,135	7,995	10,130	9,007	49,965 15 0*	1,123
	T. CWT.	T. CWT. QR. LB.	T. CWT. QR. LB.	T. CWT. QR. LB.		
2. Rosewood.	17 9	86 0 2 14	103 9 2 14	103 9 2 14		
	C.FT.		C.FT.	C.FT.		
3. Kiudal ..	259	..	259	..	..	259
4. Haldu ..	307	..	307	..	..	307
5. Koko ..	29	..	29	..	..	29
6. Teak planks.	810	..	810	359	..	451 †

* The amount includes the proceeds of about 2,124 c.ft. of timbers sent in connection with the Exhibition.

† Account sales not received ; hence not possible to calculate the amount.

(The statement excludes the timbers sent to Messrs. W. W. Howard Bros. & Co., in connection with the Exhibition).

18. VI. In addition to the main activities of the Forest Engineering Branch noted above, the following work was undertaken during the year under review :—

(1) *Beypore Saw Mill.*—Plans and estimates for a portable saw-mill to be erected at the Beypore depot for sawing sleepers and converting the waste from the sleepers and low grade logs into products marketable at a better rate than was being obtained, were prepared and accepted by Government.

This mill is now operating with the technical advice of the Engineering branch.

(2) *Beypore Depot Scheme.*—A plan was drawn up for the piling of logs under shade at this depot in order to facilitate sales, secure better prices, and keep the logs in better condition.

This plan was postponed until funds were available and an alternative plan is now being put into effect.

(3) Plans were drawn up for a device for dragging sawn sleepers with elephants.

(4) A report was submitted to Government on the recommendations of the Sleeper Enquiry Committee.

(5) Another report was submitted on the proposal to change the specifications of railway sleepers.

(6) A scheme was put up to Government for the use of mechanical transport in the Nallamalais.

(7) Reports were submitted on forest operations in Coorg and Andamans and Forest Officers from these localities were shown over our work, following which men were sent for training under the Logging Engineer in mapping, enumeration, logging and in care of saws.

(8) Technical reports were submitted to the Department of Industries on companies applying for loans under the Aid to Industries Act.

(9) Technical advice was given to the Chief Conservator of Forests in connection with Russellkonda and to various Conservators with reference to work in their circles.

(10) Plans and estimates were drawn up for a crossing of the Kabani river at Kolvalli in the Wynaad.

(11) Surveys were carried out for the opening up of new roads at Mount Stuart and Elival and plans were submitted for a foot suspension bridge at Kodamadi in the Papanasam forests.

19. VII. The year as a whole has been one of organization and training. It is felt that a good foundation for future development has been laid.

The problem of securing a fuller utilization of the forest resources of the Presidency is too large and complicated to be solved in a year or so. Each year we may expect an improvement in conditions and some solid accomplishments to look back on, but the final development must be gradual to endeavour to rush it too fast would in the end mean more back-set than progress.

The economic development of tropical forests is being forced all over the world by the exhaustion of present supplies of timber. In the Phillipines, Formosa, Borneo, Java, Mexico, Brazil, and Central America, new capital is constantly going into forest enterprises, and it certainly behoves Madras with its large unused resources to keep pace with developments elsewhere.

CHEPAUK, MADRAS,
27th July 1925.

C. S. MARTIN,
Chief Forest Engineer.

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